

МИНИСТЕРСТВО ОБРАЗОВАНИЯ ОРЕНБУРГСКОЙ ОБЛАСТИ

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ДОПОЛНИТЕЛЬНОГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ
«ИНСТИТУТ РАЗВИТИЯ ОБРАЗОВАНИЯ
ОРЕНБУРГСКОЙ ОБЛАСТИ»

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Методическим советом

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_____ Н.Б. Макарец

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ДОПОЛНИТЕЛЬНАЯ ОБЩЕОБРАЗОВАТЕЛЬНАЯ
ОБЩЕРАЗВИВАЮЩАЯ ПРОГРАММА

«ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК-1»

Направленность программы: социально-гуманитарная

Уровень программы: разноуровневая

Адресат программы: 11-18 лет

Срок освоения программы: 5 лет

Автор-составитель:
Лауер Ирина Владимировна,
педагог дополнительного образования,
первая квалификационная категория

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I. КОМПЛЕКС ОСНОВНЫХ ХАРАКТЕРИСТИК ПРОГРАММЫ

1.1. ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

1.1.1. Направленность программы

Дополнительная общеобразовательная общеразвивающая программа «Технический английский язык-1» имеет социально-гуманитарную направленность.

Она ориентирована на:

- создание и обеспечение необходимых условий для вовлечения обучающихся в практику глобального, регионального и локального развития общества, в том числе с применением игровых форматов и технологий, использования сетевых коммуникаций в реальной и виртуальной среде, формирования у обучающихся навыков, связанных с эмоциональным, физическим, интеллектуальным, духовным развитием человека;
- удовлетворение индивидуальных потребностей обучающихся в нравственном и интеллектуальном развитии, а также в расширении кругозора и приобщении к опыту применения иностранного языка на практике;
- выявление, развитие и поддержку талантливых обучающихся, а также лиц, проявивших выдающиеся способности;
- создание и обеспечение необходимых условий для личностного развития и профессионального самоопределения;
- социализацию и адаптацию обучающихся к жизни в обществе;
- развитие культуры межнационального общения и формирование общей культуры обучающихся.

Программа разработана в соответствии со следующими нормативно-правовыми документами:

- Конвенция о правах ребенка (одобрена Генеральной Ассамблеей ООН 20.11.1989);
- Федеральный закон от 29.12.2012 № 273-ФЗ «Об образовании в Российской Федерации»;
- Федеральный закон от 31.07.2020 № 304-ФЗ «О внесении изменений в Федеральный закон «Об образовании в Российской Федерации» по вопросам воспитания обучающихся»;
- Указ Президента Российской Федерации от 29.05.2017 № 240 «Об объявлении в Российской Федерации Десятилетия детства» (2018-2027 годы);
- Указ Президента РФ от 9 ноября 2022 г. № 809 «Об утверждении Основ государственной политики по сохранению и укреплению традиционных российских духовно-нравственных ценностей»;
- Приказ Правительства РФ от 29.05.2015 № 996-р «Об утверждении Стратегии развития воспитания в Российской Федерации на период до 2025 года»;

- Концепция развития дополнительного образования детей до 2030 года (утв. распоряжением Правительства РФ от 31.03. 2022 № 678-р);
- Приказ Министерства образования и науки РФ от 23.08.2017 № 816 «Об утверждении Порядка применения организациями, осуществляющими образовательную деятельность, электронного обучения, дистанционных образовательных технологий при реализации образовательных программ»;
- Приказ Министерства просвещения России от 27.07.2022 № 629 «Об утверждении Порядка организации и осуществления образовательной деятельности по дополнительным общеобразовательным Программам»;
- Приказ Министерства просвещения Российской Федерации от 03.09.2019 № 467 «Об утверждении Целевой модели развития региональных систем дополнительного образования детей»;
- Письмо Министерства образования и науки РФ от 18.11.2015 № 09-3242 «Методические рекомендации по проектированию дополнительных общеразвивающих программ (включая разноуровневые программы);
- Письмо Министерства образования и науки Российской Федерации от 28.04.2017 № ВК01232/09 «О направлении методических рекомендаций (Методические рекомендации по организации независимой оценки качества дополнительного образования детей)»;
- Письмо Министерства просвещения РФ от 31.01.2022 № ДГ-245/06 «Методические рекомендации по реализации дополнительных общеобразовательных программ с применением электронного обучения и дистанционных образовательных технологий»;
- Постановление Правительства Российской Федерации от 26.12.2017 № 1642 «Государственная Программа Российской Федерации «Развитие образования»
- Постановление Главного государственного санитарного врача РФ от 28.09.2020 № 28 «Об утверждении СанПиН 2.4.3648-20 «Санитарно-эпидемиологические требования к организациям воспитания и обучения, отдыха и оздоровления детей и молодежи» (зарегистрировано в Минюсте России 18.12.2020 № 61573);
- Постановление Главного Государственного санитарного врача РФ от 28.01.2021 № 2 «Об утверждении санитарных правил и норм СанПиН 1.2.3685-21 «Гигиенические нормативы и требования к обеспечению безопасности и (или) безвредности для человека факторов среды обитания» (разд. VI. Гигиенические нормативы по устройству, содержанию и режиму работы организаций воспитания и обучения, отдыха и оздоровления детей и молодежи);
- Закон Оренбургской области от 6 сентября 2013 г. № 1698/506-V-ОЗ «Об образовании в Оренбургской области»;
- Постановление Правительства Оренбургской области от 29.12.2018 г. № 921-пп «Об утверждении государственной программы «Развитие системы образования Оренбургской области».

1.1.2. Уровень освоения программы

Программа является разноуровневой модульной. Модули программы соответствуют уровням владения английским языком.

Модули (уровни) реализуются последовательно. Для перехода на следующий уровень обязательно прохождение итоговой аттестации.

1.1.3. Актуальность программы

Актуальность программы обусловлена ее практической значимостью, которая заключается в развитии качеств личности обучающихся, отвечающих требованиям современного информационного общества: умение анализировать информацию, соотносить понятия, выделять главное, строить языковую конструкцию.

1.1.4. Отличительные особенности программы

Форма организации содержания программы – модульная, что позволяет обеспечить последовательное освоение технической стороны английского языка и соответствует уровням владения иностранным языком, согласно системе Европейской компетенции владения иностранными языками (CEFR).

Программа имеет следующие отличительные особенности:

1. практико-ориентированность: преобладающее большинство занятий являются практикумами (практическими, игровыми, творческими), теоретические знания даются в объеме необходимой информации для проведения практических занятий, тестов, проектов;

2. использование игровых технологий и технологии эдьютейнмента, направленной на развитие познавательного интереса и положительной мотивации к изучаемому материалу; акцент на использование актуальных возможностей современных информационных технологий, видео- и аудиоматериалов, дидактических и деловых игр, образовательных программ в мультимедийном формате помогают достичь максимальной вовлеченности обучающихся в образовательный процесс.

Программа имеет профессионально-ориентированный компонент: повышает мотивацию к изучению английского языка, расширяет круг технических понятий в IT технологии, основах машиностроения.

1.1.5. Адресат программы

Программа ориентирована на обучающихся 11-18 лет и учитывает их возрастные, гендерные и психологические особенности. Для обучающихся этого возраста особенно важна профориентационная направленность изучаемого материала, а также потребность к общению со сверстниками вне школьной среды. Личностно-ориентированный подход в сочетании с групповыми и командными формами работы позволяет наиболее широко раскрыть творческий потенциал, создать условия для личностного развития обучающихся.

1.1.6. Объем и сроки освоения программы

Программа рассчитана на 360 часов. Срок освоения программы – 5 лет.

Объем модулей:

1 год обучения:

– «Технический английский язык. Начальный уровень (CEF A1-A2)», 36 часов;

– «Технический английский язык. Базовый уровень (CEF A1-A2)», 36 часов.

2 год обучения:

– «Технический английский язык. Средний уровень (CEF A2)», 72 часа;

3 год обучения:

– «Технический английский язык. Углубленный уровень (CEF A2-B1)», 72 часа;

4 год обучения:

– «Технический английский язык. Специализированный углубленный уровень (CEF B1)», 72 часа;

5 год обучения:

– «Технический английский язык. Специализированный уровень: Информационные технологии и основы машиностроения (CEF B1)», 72 часа.

1.1.7. Формы организации образовательного процесса

Форма обучения – очно-заочная.

При необходимости реализация программы возможна с использованием дистанционных образовательных технологий и электронного обучения.

Форма организации образовательного процесса – групповые занятия с элементами индивидуальной, парной работы и работы в микрогруппах.

Формы организации занятий при очном обучении – групповые и индивидуальные практические работы, деловые и ролевые игры, консультации и другие виды учебных работ.

Учебное занятие проводится в различных формах:

по дидактической цели: вводное занятие; итоговое занятие; занятие по изучению нового материала; занятие по углубленному изучению полученных знаний; занятие по систематизации и обобщению знаний; занятие по контролю знаний, умений и навыков; практическое занятие;

по особенностям коммуникативного взаимодействия педагога и обучающихся: занятие-игра, занятие-соревнование, занятие-викторина, и т.д.

Формы организации занятий с использованием дистанционных образовательных технологий и электронного обучения: онлайн-беседы, онлайн-конференции, видеолекции, онлайн-семинары, «деловые игры», лабораторные работы, онлайн-практикумы, консультации) и др.

Формы организации деятельности обучающихся:

- фронтальная;
- индивидуальная;
- парная;
- коллективная.

1.1.8. Режим занятий

Занятия проводятся 1 раз в неделю по 2 академических часа с перерывом 10 минут.

Еженедельная нагрузка на одного обучающегося составляет 2 часа.

1.2. ЦЕЛЬ И ЗАДАЧИ ПРОГРАММЫ

Цель: совершенствование социокультурных компетенций обучающихся посредством подготовки к эффективному речевому поведению в ситуациях презентации собственного технического проекта, а также ведения диалога с использованием специализированной лексики.

Задачи:

Воспитывающие:

- формировать толерантность и уважение к другой культуре, к чужому мнению;
- формировать общечеловеческие качества личности: уважение, нравственность, патриотизм.

Развивающие:

- развивать и совершенствовать психологические качества личности: любознательности, инициативности, трудолюбия, воли, настойчивости, самостоятельности в приобретении знаний;
- развивать творческий и рациональный подход к решению поставленных задач;
- развивать умение работать с различными источниками информации;
- развивать умение работать в команде/паре, выстраивать эффективную коммуникацию со сверстниками и педагогами, выявлять релевантные навыки и компетенции друг друга и договариваться о сотрудничестве;
- развивать критическое мышление (анализ составляющих частей механизмов и определение отсутствующих деталей, эффективно-неэффективного поведения в случае инцидентов с использованием техники);
- развивать умение отстаивать свою точку зрения с использованием научно-обоснованных аргументов и применением межпредметного анализа учебно-познавательных задач;
- развивать навыки социального взаимодействия, за счет расширения спектра проигрываемых социальных ролей в учебно-игровых ситуациях.

Обучающие:

- формировать базовые знания языковых конструкций

разговорного и технического английского языка, овладение приёмами написания текста в разной стилистике;

– формировать навык правильного произношения английских звуков и правильного интонирования высказывания;

– формировать развитие навыков анализа и перевода англоязычного текста, структурирования информации, выделения главного, формулирования вопросов, ведения деловой переписки;

– формировать развитие навыков самостоятельного решения коммуникативных задач на английском языке в рамках изученной тематики;

– формировать расширение словарного запаса обучающихся на 200 слов/фраз специализированной лексики;

– формировать опыт прочтения технической документации: инструкций по безопасности использования различных механизмов и систем.

1.3. СОДЕРЖАНИЕ ПРОГРАММЫ

1.3.1. Учебно-тематический план

Название модуля	Название темы	Всего часов	Теория	Практика	Формы аттестации/ контроля
1.«Технический английский. Начальный уровень. (CEF A1-A2)», 1 год обучения	Вводное занятие	2	1	1	Входная диагностика (тестирование)
	Технический английский как средство самопрезентации	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Механизмы и инструменты. Функции, месторасположение, направления движения	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Системы: отопительная система, электрическая цепь, система охлаждения. Материалы: Испытания материалов. Свойства материалов. Закупка материалов	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование. Промежуточная аттестация (тестирование)
	Технические характеристики (размер, объем и т.д.), используемые на производстве и в строительной отрасли	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Техническая поддержка. Безопасность на производстве	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Итоговое занятие	4	-	4	Итоговое тестирование, презентация проекта
ИТОГО		36	11	25	

2.«Технический английский. Базовый уровень. (CEF A1-A2)», 1 год обучения	Вводное занятие	2	-	2	Входная диагностика (тестирование)
	Материалы, их свойства. Технический чертеж. САПР (система автоматизированного проектирования)	4	1	3	Наблюдение, опрос, выполнение практических работ, тестирование
	Станки, машинное оборудование. Электричество и электроника	10	2	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Телекоммуникация и компьютерные технологии. Техническая автоматизация и промышленная безопасность	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование. Промежуточная аттестация (тестирование)
	Техническая поддержка. Охрана труда	4	1	3	Наблюдение, опрос, выполнение практических работ, тестирование
	Моторы и турбины. Технический прогресс и развитие технологий	8	4	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Итоговое занятие	2		2	Итоговое тестирование, презентация проекта
	ИТОГО	36	10	26	
3. «Технический английский язык. Средний уровень (CEF A2)», 2 год обучения	Вводное занятие	2	-	2	Входная диагностика (тестирование)
	Организация работы и трудовые функции	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование
	Сравнение технических характеристик. Процессы. Производство продукции	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Описание. Функции механизмов. Процедуры. Правила безопасности. Мой технический проект на английском языке	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование. Промежуточная аттестация (тестирование).
	Службы. Работа с клиентами в технической службе	4	1	3	Наблюдение, опрос, выполнение практических работ, тестирование
	Энергетика. Двигатели. Системы охлаждения и отопления. Системы измерения	16	6	10	Наблюдение, опрос, выполнение практических работ, тестирование

	технических показателей Сила. Нагрузка. Сопротивление				
	Дизайн и инновации. Индустриальные роботы. Экологически чистый транспорт. Технологический рост	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Итоговое занятие	4		4	Итоговое тестирование, презентация проекта
	ИТОГО	72	23	49	
4.«Технический английский язык. Углубленный уровень (CEF A2-B1)» 3 год обучения	Вводное занятие	2	-	2	Входная диагностика (тестирование)
	Системы и процессы в производстве. Система организации безопасного функционирования техники. Система спасения и передачи данных в случаях аварии. Процессы. Формирование пластиковых изделий методом экструзии. Литьевое прессование	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование
	Выполнение действий. Параметры, условия осуществления действия; порядок, последовательность действий	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Карьера. От технолога до изобретателя технических средств. Собеседование при приеме на работу. Правила поведения	6	2	4	Наблюдение, опрос, выполнение практических работ, тестирование
	Промышленная безопасность. Правила безопасности. Планирование, разработка технологии производства. План-схема. Технологический маршрут. Причины и последствия. Системы производства электроэнергии	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование. Промежуточная аттестация (тестирование)
	Составление отчетов, проведение расследований по инцидентам. Проекты в нефтегазовой отрасли	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование

	Проектирование, дизайн. Дизайн зданий. Карты местности. Аварийная ситуация, предположения, расследования, предотвращение	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Материалы, их свойства. Экологически чистые материалы. Охрана окружающей среды. Угрозы. Инновации. Приоритеты	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование
	Итоговое занятие	4	-	4	Итоговое тестирование, презентация проекта
	ИТОГО	72	24	48	
5. «Технический английский язык. Специализированный углубленный уровень (CEF B1)» 4 год обучения	Вводное занятие	2	-	2	Входная диагностика (тестирование)
	Инновации в производстве. «Умные» скважины. Использование лазера. Конверсия. Передача технологий из одной отрасли в другую (спин-офф)	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование
	Системы и процедуры на производстве. Отзыв некачественных продуктов. Закрытие проекта. Реконструкция, модернизация.	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Процессы и планирование. Причины, поиск новых технологий и методов. Оценка рисков при планировании новых технологий	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование. Промежуточная аттестация (тестирование)
	Развитие новых технологий. Прототипы. Сравнение и выбор лучших практик. Системы и методы безопасности. Работа в чрезвычайных ситуациях	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Работа с заказчиками. Соглашения. Составление коммерческого предложения, формулировка преимуществ продукта. Контактирование. Тестирование продукта (технологии)	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование

	Чрезвычайные ситуации. Расследования. Оперативное взаимодействие служб на производстве. Проведение расчетов. Оценка проектов. Эффективное представление проектов партнеру. Инновации в проекте	10	4	6	Наблюдение, опрос, выполнение практических работ, тестирование
	Итоговое занятие	4	-	4	Итоговое тестирование, презентация проекта
	ИТОГО	72	24	48	
6. «Технический английский язык. Специализированный уровень: Информационные технологии и основы машиностроения (CEF B1)» 5 год обучения	Вводное занятие	2		2	Входная диагностика (тестирование)
	Компьютерная грамотность. Развитие электроники и микроэлектроники. История создания компьютеров. Понятие обработки данных. Компьютерные системы и их архитектура. Функциональная организация компьютера. Определение механического мозга	14	6	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Запоминающие устройства. Блоки памяти. Центральное процессорное устройство, его основные компоненты. Устройства ввода-вывода. Персональные компьютеры. Модем. Программирование. Языки программирования. Краткая история развития сети Интернет	14	6	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Новые средства информации. Эра компьютеризации. Этапы совершенствования компьютеров. Современные портативные компьютеры. Сотовые телефоны – история, свойства, типы	8	2	6	Наблюдение, опрос, выполнение практических работ, тестирование. Промежуточная аттестация (тестирование)
	Классификация отраслей машиностроения. Машиностроительные	10	3	7	Наблюдение, опрос, выполнение практических работ,

	материалы, свойства, область применения. Механизмы. Силы в механизмах и машинах. Электрический мотор, составные части				тестирование
	Системы: центральное отопление, контроль бытовых приборов, холодильное оборудование. Транспортные средства. Тормозной диск и его принцип работы. Лазеры, область применения	12	4	8	Наблюдение, опрос, выполнение практических работ, тестирование
	Технические профессии. Карьера молодого инженера. Трудоустройство, правила написания резюме. Техническое обслуживание и ремонт. Робототехника	8	2	6	Наблюдение, опрос, выполнение практических работ, тестирование
	Итоговое занятие	4	-	4	Итоговое тестирование, презентация проекта
	ИТОГО	72	23	49	
	ВСЕГО	360	115	245	

1.3.2. Содержание учебно-тематического плана

МОДУЛЬ 1. «ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК. НАЧАЛЬНЫЙ УРОВЕНЬ (CEF A1-A2)» (1 год обучения, 36 Ч.)

Вводное занятие (2 часа)

Теория (1 час): английский язык как средство коммуникации. Задачи и перспективные направления технического английского языка. Техника безопасности на занятиях. Требования к организации обучения. Знакомство с основными учебными материалами (уровнями).

Практика (1 час): входная диагностика (тестирование).

Тема 1. Технический английский как средство самопрезентации (6 часов)

Теория (2 часа): общее понятие о программе. Специфика технического английского языка. Применимость на практике (в каких профессиях). Порядок и содержание работы творческого объединения. Знакомство, самопрезентация, обмен контактами на специализированных мероприятиях, конференциях.

Глагол to be. Повторение буквосочетаний, порядковых и количественных числительных.

Практика (4 часа): самопрезентация, диалоги на знакомство.

Аудирование примеров налаживания контактов. Выполнение заданий на использование порядковых и количественных числительных, дней недели, дат. Единицы измерения.

Тема 2. Механизмы и инструменты. Функции, месторасположение, направления движения (6 часов)

Теория (2 часа): механизмы и инструменты. Названия инструментов. Название деталей и элементов сборки. Монтаж (сборка) изделий. Оформление заказа на приобретение. Определение качественных характеристик при покупке (размер, цвет, количество). Функции механизмов. Инструкции по применению и действия с механизмами.

Present Simple – утверждение, отрицание, вопросы, ответ. Предлоги направления движения. Модальный глагол can. Повелительное наклонение. When clause.

Практика (4 часа): использование названий инструментов. Аудирование, выполнение упражнений, говорение по теме. Ролевая игра: как собрать скейтборд; продавец-покупатель компьютерной техники. Выполнение творческих заданий по темам занятий.

Текущее тестирование на знание лексики, грамматических форм.

Тема 3. Системы: отопительная система, электрическая цепь, система охлаждения. Материалы: испытания материалов. Свойства материалов. Закупка материалов (6 часов)

Теория (2 часа): принцип отопительной системы. Составные части электрической сети. Принцип системы охлаждения. Условное наклонение, present simple. Испытания материалов. Свойства материалов. Закупка материалов. Лексика по теме: материалы. Present continuous.

Практика (4 часа): аудирование, выполнение упражнений, говорение по теме. Ролевая игра: продавец-покупатель спортивный инвентарь. Промежуточная аттестация (тестирование).

Тема 4. Технические характеристики (размер, объем и т.д.), используемые на производстве и в строительной отрасли (6 часов)

Теория (2 часа): технические характеристики и материалы, используемые на производстве и в строительной отрасли. Исчисляемые, неисчисляемые существительные.

Практика (4 часа): аудирование, выполнение упражнений, говорение по теме. Квест – какое здание изображено на картинке. Использование в речи - глаголы will/won't.

Тема 5. Техническая поддержка. Безопасность на производстве (6 часов)

Теория (2 часа): сообщение об инциденте, аварии. Повреждение механизма. Диагностика, устранение неполадок в системах. Горячая линия технической поддержки. Инструкция пользователя. Безопасность и охрана

труда. Предупреждающие, запрещающие знаки.

Present Perfect. Past participles as adjectives (Причастие II в качестве прилагательного). Past Simple. Условное наклонение. Модальные глаголы must, could, might.

Лексика по теме: сообщение об инциденте, повреждение механизма, события в прошлом (космонавтика), возможные негативные последствия (риски), расследования инцидентов.

Практика (4 часа): аудирование, выполнение упражнений, говорение по теме. Использование в речи грамматических форм- Present Perfect. Past participles.

Выполнение творческих заданий на тему: горячая линия технической поддержки, инструкция пользователя. Ролевая игра: Руководитель – подчиненный. Текущее тестирование на знание лексики, грамматических форм.

Самостоятельное изучение: таблицы неправильных глаголов.

Итоговое занятие (4 часа)

Практика (4 часа): мой технический проект на английском языке- консультации и подбор лексики для описательной части презентации по проекту.

Итоговое тестирование.

Индивидуальное публичное выступление длительностью 3-5 минут на тему технического изделия/механизма/изобретения/программы и т.д. Презентация на английском языке (до 10 слайдов). Защита проекта на английском языке.

МОДУЛЬ 2. «ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК. БАЗОВЫЙ УРОВЕНЬ» (CEF A1-A2)» (1 год обучения, 36 Ч.)

Вводное занятие (2 часа)

Практика (2 часа): входная диагностика (тестирование).

Тема 1. Материалы и их свойства. Технический чертеж. САПР (система автоматизированного проектирования) (4 часа)

Теория (1 час): типы и свойства материалов. Виды обработки металлов. Технический чертеж. Требования к нему. САПР. Автоматизированное управление производством.

Практика (3 часа): выполнение творческих заданий на использование свойств материалов при производстве изделий. Выполнение упражнений по теме виды обработки металлов. Чтение текста по этапам создания технического чертежа. Аудирование теста о САПР, выполнение упражнений на понимание. Лексика по теме: технический чертеж.

Тема 2. Станки, машинное оборудование. Электричество и электроника (10 часов)

Теория (2 часа): станки, машинное оборудование. Виды, функции. Станки с числовым программным управлением. Электричество. Строение атома. Электропроводность материалов. Электрическая цепь. Виды электрических схем. Способы производства энергии. Электростанции. Альтернативные источники энергии.

Практика (8 часов): аудирование, выполнение упражнений, говорение по теме.

Выполнение творческих заданий на тему: электричество, электрическая цепь, мобильные телефоны и радиосигналы. Лексика по теме: электричество, электрические цепи, получение энергии, электроника. Текущее тестирование на знание лексики, грамматических форм.

Тема 3. Телекоммуникация и компьютерные технологии. Техническая автоматизация и промышленная безопасность (6 часов)

Теория (2 часа): телекоммуникация. Сети. Средства передачи информации. Сетевые компоненты. Компьютерные технологии. Технические средства. Программное обеспечение. Технические средства автоматизации. Автоматический манипулятор. Сенсоры и преобразователи.

Практика (4 часа): аудирование, выполнение упражнений, говорение по теме. Выполнение творческих заданий на выбранную тему. Лексика по теме: технические средства автоматизации, машинные компоненты и комплектующие.

Подбор лексики для описательной части презентации по проекту. Подготовка презентаций на английском языке по выбранным темам. Промежуточная аттестация (тестирование).

Текущее тестирование на знание лексики, грамматических форм.

Тема 4. Техническая поддержка. Охрана труда (4 часа)

Теория (1 час): техническая поддержка. Планово-предупредительное обслуживание. Машинные компоненты и комплектующие. Техобслуживание автомобиля. Охрана труда и промышленная безопасность.

Практика (3 часа): выполнение упражнений, говорение по теме. Выполнение творческих заданий на выбранную тему. Лексика по теме: техническая поддержка, планово-предупредительное обслуживание, техобслуживание автомобиля, охрана труда и промышленной безопасности, предупреждающие знаки, средства защиты работающих, пожарная безопасность.

Тема 5. Моторы и турбины. Технический прогресс и развитие технологий (8 часов)

Теория (4 часа): поршни и запорно-регулирующая арматура. Спусковой механизм (включатель). Передача сигнала, трансляция, реле. Моторы и турбины. Принцип действия. Инструкции. Развитие технологий.

Технический прогресс. Повелительное наклонение.

Практика (4 часа): аудирование, выполнение упражнений, говорение по теме.

Выполнение творческих заданий по выбранной теме. Лексика по теме: моторы, турбины, поршни, инструкции, развитие технологий, технический прогресс. Текущее тестирование на знание лексики, грамматических форм.

Самостоятельное изучение: настоящего длительного времени, глаголов состояния.

Итоговое занятие (2 часа)

Практика (2 часа): мой технический проект на английском языке-консультации и подбор лексики для описательной части презентации по проекту.

Итоговое тестирование.

Индивидуальное публичное выступление длительностью 3-5 минут на тему технического изделия/механизма/изобретения/программы и т.д. Презентация на английском языке (до 10 слайдов). Защита проекта на английском языке.

МОДУЛЬ 3. «ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК. СРЕДНИЙ УРОВЕНЬ (CEF A2)» (2 год обучения, 72 Ч.)

Вводное занятие (2 часа)

Практика (2 часа): входная диагностика (тестирование).

Тема 1. Организация работы и трудовые функции (10 часов)

Теория (4 часа): знакомство с целью и задачами обучения по модулю. Порядок и содержание работы творческого объединения. Правила техники безопасности. Действия. Работа в команде. Выполнение инструкций. Планирование деятельности. Ежедневные обязанности. Правила приема на работу. Аспекты профессиональной деятельности: ежедневные обязанности и описание видов работ. Present Continuous, Present Perfect. Конструкции by/using/by using/by means of+noun. Present Simple in job descriptions.

Практика (6 часов): аудирование, выполнение упражнений, говорение по теме. Заполнение инструкции по работе в команде по обслуживанию гоночного автомобиля. Лексика по теме: действия, работа в команде, выполнение инструкций, стажировка, трудовые функции, планирование работы. Использование Present Continuous, Present Perfect. Написание резюме, написание сообщений по эл.почте, резюме. Ролевая игра: проведение интервью.

Тема 2. Сравнение технических характеристик. Процессы. Производство продукции (12 часов)

Теория (4 часа): ограничения по техническим характеристикам. Технические характеристики продукта. Оборудование. Процессы.

Технологический процесс. Системы автоматического управления процессами. Производство продукции. Средства коммуникации. Повторение грамматических конструкций Passive Voice. Сравнительная и превосходная степень прилагательных.

Практика (8 часов): аудирование, выполнение упражнений, говорение по теме. Лексика по теме: оборудование и технические характеристики, процессы, технологический процесс, системы автоматического управления процессами, производство продукции. Использование в речи - конструкций Passive Voice. Ролевая игра: заказ модели телефона через службу заказа. Текущее тестирование на знание лексики, грамматических форм.

Самостоятельное изучение: образование пассивного залога во временах глагола.

Тема 3. Описание. Функции механизмов. Процедуры. Правила безопасности. Мой технический проект на английском языке (12 часов)

Теория (4 часа): описание, определение функций механизмов. Внешний вид объекта. Изобретения. Процедуры. Правила безопасности. Экстренная ситуация/авария. Виды первой помощи. Модальные глаголы must/should/need to/have to. Modals and passive voice. Использование конструкций for+ing, to+infin, acts as +noun, you can use it/it can be usedfor/to/as. Relative clause with which, that, who.

Практика (8 часов): аудирование, выполнение упражнений, говорение по теме. Лексика по теме: описание, определение функций механизмов, процедуры, правила безопасности. Выполнение творческих заданий на тему: описание, определение функций механизмов. Подбор лексики для описательной части презентации по проекту. Текущее тестирование на знание лексики, грамматических форм. Промежуточная аттестация (тестирование).

Тема 4. Службы. Работа с клиентами в технической службе (4 часа)

Теория (1 час): службы. Работа с клиентами. Possibility in Present. Past Passive.

Практика (3 часа): аудирование, выполнение упражнений, говорение по теме.

Лексика по теме: службы, работа с клиентами в технической службе. Ролевая игра: варианты работы с клиентами (инструкции по решению проблем и пр.), ответы на жалобы по технической исправности механизмов.

Тема 5. Энергетика. Двигатели. Системы охлаждения и отопления. Системы измерения технических показателей. Сила. Нагрузка. Сопротивление (16 часов)

Теория (6 часов): энергетика. Виды альтернативной энергетики. Энергия воды. Двигатели. Системы охлаждения и отопления. Система измерения. Аббревиатуры, инструменты измерения. Сенсоры. Виды, описание. Система GPS. Местонахождение объекта. Нагрузка (воздействие).

Механическое воздействие. Качества. Сопротивление. Результаты. Причины электрического замыкания. Электрическая цепь. Noun+noun combination. Indirect question with some function in sentence as object noun phrase. Суффиксы able, ible, un/in/non. Verbs ending in –en (to strengthen it). When and as clauses.

Практика (10 часов): аудирование, выполнение упражнений, говорение по теме. Лексика по теме: энергетика, виды альтернативной энергетики, энергия воды, двигатели, системы охлаждения и отопления, система измерения, аббревиатуры, инструменты измерения, сенсоры, система GPS, нагрузка (воздействие), механическое воздействие, сопротивление, результаты, электрическое замыкания, электрическая цепь. Выполнение творческих заданий на тему: местонахождение объекта. Текущее тестирование на знание лексики, грамматических форм.

Тема 6. Дизайн и инновации. Индустриальные роботы. Экологически чистый транспорт. Технологический рост (12 часов)

Теория (4 часа): инновации на производстве. Роботизация производства. Сферы применения роботов. Виды энергии для использования экологически чистыми видами транспорта. Воздушный и судоходный транспорт через призму экологии. Технологические изменения в нем.

Практика (8 часов): выполнение творческих заданий на тему: роботы на производстве, страны с наиболее развитым использованием автоматизации на производстве. Лексика по теме: транспорт, экология. Текущее тестирование на знание лексики, грамматических форм.

Итоговое занятие (4 часа)

Практика (4 часа): инженер – профессия будущего. Подбор лексики для описательной части презентации по проекту. Повторение грамматических конструкций. Итоговое тестирование (все виды речевой деятельности).

Индивидуальное публичное выступление длительностью 3-5 минут на тему технического процесса/технологии/программы и т.д. Презентация на английском языке (до 10 слайдов).

МОДУЛЬ 4. «ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК. УГЛУБЛЕННЫЙ УРОВЕНЬ (CEF A2-B1)» (3 год обучения, 72 Ч.)

Вводное занятие (2 часа)

Практика (2 часа): входная диагностика (тестирование).

Тема 1. Системы и процессы в производстве. Система организации безопасного функционирования техники. Система спасения и передачи данных в случаях аварии. Процессы. Формирование пластиковых изделий методом экструзии. Литьевое прессование (10 часов)

Теория (4 часа): система спасения в случаях аварии. Технические средства спасения. Система передачи данных в случае ЧП. Описание технологических характеристик. Управление операциями спасения.

Руководство по спасению (правила составления). Процессы. Будущие формы. Применение пластика.

Грамматика. Согласование времен. Относительные местоимения. Повелительно наклонение. Простое настоящее время. Простое будущее время. Другие формы выражения будущего времени. Present Simple Passive. Герундий.

Практика (6 часов): выполнение заданий (групповая и индивидуальная работа). Система спасения в случаях аварии. Технические средства спасения. Аудирование, выполнение упражнений, говорение на тему: Система передачи данных в случае ЧП. Описание технологических характеристик. Управление операциями спасения. Руководство по спасению. Выполнение творческих заданий на тему: Процессы. Будущие формы. Применение пластика. Литьевое прессование. Придание твердой формы пластику. Текущее тестирование на знание лексики, грамматических форм.

Тема 2. Выполнение действий. Параметры, условия осуществления действия; порядок, последовательность действий (6 часов)

Теория (2 часа): происшествие, событие. Параметры, условия осуществления действия (на примере запуска космической ракеты). Порядок, последовательность действий (на примере аварийной системы прекращения полета космической ракеты). Последовательность действий (катапультирование водителя во время автогонок). Настоящее совершенное и простое прошедшее время. Условные предложения 0 и 1 типа. Придаточное предложение времени. Суффиксы существительных (-ment, -ation, -ion)

Практика (4 часа): аудирование, выполнение упражнений, говорение на тему

Происшествие, событие. Параметры, условия осуществления действия (на примере запуска космической ракеты). Порядок, последовательность действий (на примере аварийной системы прекращения полета космической ракеты). Групповая и индивидуальная работа. Последовательность действий (катапультирование водителя во время автогонок).

Тема 3. Карьера. От технолога до изобретателя технических средств. Собеседование при приеме на работу. Правила поведения (6 часов)

Теория (2 часа): карьера. Род деятельности. Профессия инженер. Написание резюме. Собеседование при приеме на работу. Правила поведения. Лексические формы. Present Continuous для действий в будущем. Конструкция going to. Степени сравнения прилагательных. Present Perfect/Past simple.

Практика (4 часа): аудирование, выполнение упражнений, говорение на тему Карьера. От технолога до изобретателя технических средств. Ролевая игра-собеседование при приеме на работу. Текущее тестирование на знание лексики, грамматических форм.

Самостоятельное изучение: типов условных предложений.

Тема 4. Промышленная безопасность. Правила безопасности. Планирование, разработка технологии производства. План-схема. Технологический маршрут. Причины и последствия. Системы производства электроэнергии (12 часов)

Теория (4 часа): техника безопасности. Предупреждающие сигналы (система предупреждения водителя автомобиля). Маркеры (речевые шаблоны) дискуссий. Инструкции по технике безопасности. Правила безопасности (правила безопасности полетов самолетов). Планирование, разработка технологии производства. План-схема. Технологический маршрут. Причины и последствия. Системы производства электроэнергии (на примере геотермальной электростанции). Active/ passive modals (must/should.) Причастие настоящего времени (have/has + 3 ф.) Future modals (be able..) Выражения due to/owing to/because of.. Лексические маркеры (полезные речевые выражения) при защите презентации.

Практика (8 часов): аудирование, выполнение упражнений, говорение на тему Промышленная безопасность. Техника безопасности. Предупреждающие сигналы. Выполнение творческих заданий на тему: Инструкции по технике безопасности. Планирование, разработка технологии производства. План-схема. Технологический маршрут. Чтение: Системы производства электроэнергии (на примере геотермальной электростанции). Текущее тестирование на знание лексики, грамматических форм. Промежуточная аттестация (тестирование).

Тема 5. Составление отчетов, проведение расследований по инцидентам. Проекты в нефтегазовой отрасли (10 часов)

Теория (4 часа): составление отчетов. Спецификация, предписание (на примере обеспечения безопасности в аэропорту). Описание инцидента (на примере металлодетектора). Процессы (на примере электрической цепи сканера). Программа, проект (на примере SPAR-платформы для добычи нефти и газа). Спецификации. Методы и цели. Статистика. Косвенная речь. Правила перевода из прямой речи в косвенную. Past Continuous. Лексика по теме электроника. Present Perfect/ Past simple passive. Соединение предложений (by means of/in order to).

Практика (6 часов): аудирование, выполнение упражнений, говорение на тему: Описание инцидента (на примере металлодетектора). Ролевая игра-служба безопасности в аэропорту. Выполнение творческих заданий на тему: Программа, проект (на примере SPAR-платформы для добычи нефти и газа). Спецификации. Чтение: Бурение. Методы бурения нефтяных скважин. Текущее тестирование на знание лексики, грамматических форм.

Тема 6. Проектирование, дизайн. Дизайн зданий. Карты местности. Аварийная ситуация, предположения, расследования, предотвращение (12 часов)

Теория (4 часа): проектирование, дизайн. Технические изобретения. Дизайн зданий, сооружений. Геометрические формы. План местности, план

застройки. Стихийные бедствия, аварии. Гипотезы возникновения. Расследования, испытания. Составление отчета об испытаниях. Лексические шаблоны для отчетов. Сравнительная и превосходная степень прилагательных. Модальные глаголы. Условные предложения 3 типа (should/shouldn't have) Текущее тестирование на знание лексики, грамматических форм.

Практика (8 часов): аудирование, выполнение упражнений, говорение на тему: Дизайн зданий, сооружений. Геометрические формы. План местности, план застройки. Стихийные бедствия, аварии. Гипотезы возникновения. Расследования, испытания. Составление отчета об испытаниях. Текущее тестирование на знание лексики, грамматических форм.

Тема 7. Материалы, их свойства. Экологически чистые материалы. Охрана окружающей среды. угрозы. инновации. приоритеты (10 часов)

Теория (4 часа): материалы. Оборудование и используемые материалы. Свойства материалов. Качество и состав материалов. Материалы для спортивной обуви и одежды. Возможности и перспективы. Угрозы и негативные факторы для окружающей среды (письмо из будущего 2060 г). Приоритеты в способах выработки электроэнергии (солнечные батареи, водородный элемент и пр.) Способы выражения предложений (I would suggest/Let's try..). Нововедения. Техническое описание летательного средства (Greenbird). Future Perfect. Лексические формы выражения схожести/различий (similar to/resemble/unlike/different. Способы выражения свойств материалов (Passivevoice/can/can't/ without +ing). Adjectival/ noun phrase.

Практика (6 часов): аудирование, выполнение упражнений, говорение на тему: Материалы. Оборудование и используемые материалы. Свойства материалов. Возможности и перспективы. Угрозы и негативные факторы для окружающей среды (письмо из будущего 2060 г). Приоритеты в способах выработки электроэнергии (солнечные батареи, водородный элемент и пр.) Текущее тестирование на знание лексики, грамматических форм.

Итоговое занятие (4 часа)

Практика (4 часа): инженер – профессия будущего. Подбор лексики для описательной части презентации по проекту. Повторение грамматических конструкций. Итоговое тестирование (все виды речевой деятельности).

Индивидуальное публичное выступление длительностью 3-5 минут на тему технического процесса/технологии/программы и т.д. Презентация на английском языке (до 10 слайдов).

**МОДУЛЬ 5. «ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК.
СПЕЦИАЛИЗИРОВАННЫЙ УГЛУБЛЕННЫЙ УРОВЕНЬ (CEF B1)»
(4 год обучения, 72 Ч.)**

Вводное занятие (2 часа)

Практика (2 часа): входная диагностика (тестирование).

Тема 1. Инновации в производстве. «Умные» скважины. Использование лазера. Конверсия. Передача технологий из одной отрасли в другую (спин-офф) (10 часов)

Теория (4 часа): виды инноваций на производстве. Технологии NASA, используемые в ежедневной жизни. Новые способы добычи нефти. Определение функции устройства. Ввод лексики по теме: нефтегазовая отрасль, бурение и удаленный контроль, лазерные технологии, продукты из космических разработок, синтетические материалы. Объяснение грамматического материала: Past/Present Perfect Continuous, Past Participle, Present/Past simple Passive, Cohesion.

Практика (6 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрого чтения, говорения. Мозговой штурм на тему Конверсия- плюсы и минусы. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Навыки говорения на тему: Техническое описание устройства, необходимость, рекомендации по его использованию. Текущее тестирование на знание лексики, грамматических форм.

Тема 2. Системы и процедуры на производстве. Отзыв некачественных продуктов. Закрытие проекта. Реконструкция, модернизация (12 часов)

Теория (4 часа): системы и процедуры на производстве. Выявление проблем, брака, поиск решений, контроль качества. Условия для принятия решений по отзыву продукта (изделия) с рынка. Реорганизация производства. Ввод лексики по теме: автоматизация, механика, электрика, техническое обслуживание, электроника. Грамматика: Present Continuous Passive, non-defining relative clause. Грамматические конструкции, используемые в инструкциях (while/as +.ing).

Практика (8 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрого чтения, говорения. Составление инструкции пользователя. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Навыки говорения на тему: Отзыв продукта с рынка. Аргументы для покупателей. Текущее тестирование на знание лексики, грамматических форм.

Самостоятельное изучение: таблицы согласования времен.

Тема 3. Процессы и планирование. Причины, поиск новых технологий и методов. Оценка рисков при планировании новых технологий (12 часов)

Теория (4 часа): процессы и планирование. Этапы и стадии в процессе планирования. Внешние и внутренние риски начала производства новой продукции. SWOT-анализ как метод стратегического планирования, заключающийся в выявлении факторов внутренней и внешней среды организации и разделении их на четыре категории: S trengths (сильные стороны), W eaknesses (слабые стороны), O pportunities (возможности), T hreats (угрозы). Ввод лексики по теме: металлургия, химическая промышленность, металлообработка, гражданское строительство. Грамматика: фразы причин и последствий, выбор активного/пассивного залога, герундий, фразы со степенью уверенности.

Практика (8 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстро чтения, говорения. Составление диаграмм, план-схемы ввода продукта. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Навыки говорения на тему: Проведение собрания по защите проекта по вводу нового продукта. Текущее тестирование на знание лексики, грамматических форм. Промежуточная аттестация (тестирование).

Тема 4. Развитие новых технологий. Прототипы. Сравнение и выбор лучших практик. Системы и методы безопасности. Работа в чрезвычайных ситуациях (12 часов)

Теория (4 часа): развитие новых технологий. Использование прототипов. Сравнительные характеристики технического устройства на примере сотовых телефонов. Электроника, сенсорные экраны. Логистика, хранение товаров на складе. Информационно-коммуникационные технологии. Обеспечение безопасности на производстве. Охрана труда. Ввод лексики по теме: ИТ, материаловедение, электроника, безопасность. Грамматика: фразы сравнения и контраста, Present Perfect Passive modal.

Практика (8 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстро чтения, говорения. Составление текста для запуска маркетинговой акции по выпуску нового продукта на рынок. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Навыки говорения на тему: Безопасность. Расследование инцидента на производстве. Текущее тестирование на знание лексики, грамматических форм.

Тема 5. Работа с заказчиками. Соглашения. Составление коммерческого предложения, формулировка преимуществ продукта. Контактное тестирование. Тестирование продукта (технологии) (10 часов)

Теория (4 часа): работа с заказчиками. Составление коммерческого предложения, формулировка преимуществ продукта. Работа с возражениями. Виды контрактов. Предконтрактное обсуждение. Тестирование продукта.

Коллаборация при решении проблем при подписании контракта. Его сопровождение. Ввод лексики по теме: электроника, сенсорные технологии, контракт. Грамматика: noun clause/ gerund, defining relative clause, if-clauses.

Практика (6 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорения. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Навыки чтения специализированных текстов: контракт, условия его выполнения. Текущее тестирование на знание лексики, грамматических форм.

Тема 6. Чрезвычайные ситуации. Расследования. Оперативное взаимодействие служб на производстве. Проведение расчетов. Оценка проектов. Эффективное представление проектов партнеру. Инновации в проекте (10 часов)

Теория (4 часа): чрезвычайные ситуации. Расследования. Оперативное взаимодействие служб на производстве. Проведение расчетов. Правила написания отчета о ЧП. Руководство по коммуникации при чрезвычайных ситуациях. Проект. Его презентация. Какие инновации в нем присутствуют. Ввод новой лексики по теме: гидроэлектростанции, расследование инцидентов, авиация, робототехника, IT-технологии, нанотехнологии.

Практика (6 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорения. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Навыки говорения на тему: Чрезвычайные ситуации. Расследования. Оперативное взаимодействие служб на производстве. Текущее тестирование на знание лексики, грамматических форм.

Итоговое занятие (4 часа)

Практика (4 часа): инженер – профессия будущего. Подбор лексики для описательной части презентации по проекту. Повторение грамматических конструкций. Итоговое тестирование (все виды речевой деятельности).

Индивидуальное публичное выступление длительностью 3-5 минут на тему технического процесса/технологии/программы и т.д. Презентация на английском языке (до 10 слайдов).

**МОДУЛЬ 6. «ТЕХНИЧЕСКИЙ АНГЛИЙСКИЙ ЯЗЫК.
СПЕЦИАЛИЗИРОВАННЫЙ УРОВЕНЬ: ИНФОРМАЦИОННЫЕ
ТЕХНОЛОГИИ И ОСНОВЫ МАШИНОСТРОЕНИЯ (CEF B1)»
(5 год обучения, 72 Ч.)**

Вводное занятие (2 часа)

Практика (2 часа): входная диагностика (тестирование).

Тема 1. Компьютерная грамотность. Развитие электроники и микроэлектроники. История создания компьютеров. Понятие обработки данных. Компьютерные системы и их архитектура. Функциональная организация компьютера. Определение механического мозга (14 часов)

Теория (6 часов): что такое компьютер? Компьютерная грамотность. Развитие электроники и микроэлектроники. История создания компьютеров. Понятие обработки данных. Компьютерные системы и их архитектура. Функциональная организация компьютера. Определение механического мозга. Грамматика: Past Simple, Passive Voice. Неличные формы глагола в функции определения. Модальные глаголы. Причастие I, II в функции обстоятельства. Степени сравнения прилагательных.

Практика (8 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорения. Составление архитектуры компьютерных сетей, топология сетей. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Текущее тестирование на знание лексики, грамматических форм.

Тема 2. Запоминающие устройства. Блоки памяти. Центральное процессорное устройство, его основные компоненты. Устройства ввода-вывода. Персональные компьютеры. Модем. Программирование. Языки программирования. Краткая история развития сети Интернет (14 часов)

Теория (6 часов): запоминающие устройства. Компоненты памяти. Основные компоненты ЦПУ. Среда устройств ввода-вывода. Принтеры. Сканеры. Использование персональных компьютеров. Организация микрокомпьютерной системы. Языки программирования. Выполнение и испытание программы. Сеть Интернет. Грамматика: Perfect Participle Active, Passive. Независимый причастный оборот. Формы инфинитива, инфинитивные конструкции for+inf, objective with the inf, nominative with the inf. Безличные предложения. Сложноподчиненные предложения. Сослагательное наклонение, условные предложения.

Практика (8 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорения. Составление мини-доклада о языках программирования. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Текущее тестирование на знание лексики, грамматических форм.

Тема 3. Новые средства информации. Эра компьютеризации. Этапы совершенствования компьютеров. Современные портативные компьютеры. Сотовые телефоны: история, свойства, типы (8 часов)

Теория (2 часа): новые средства информации. Инновации в сфере информационных технологий. Современные портативные компьютеры. Планшет, лэптоп. Сотовые телефоны – история, свойства, типы. Грамматика: обзор английских времен и залогов. Неличные формы глагола. Инфинитивные и причастные конструкции. Словообразование.

Отрицательные суффиксы и префиксы.

Практика (6 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорение. Ролевые игры-консультация в магазине по техническим характеристикам компьютеров разных видов, сравнение, шаблоны продаж. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Текущее тестирование на знание лексики, грамматических форм. Промежуточная аттестация (тестирование).

Тема 4. Классификация отраслей машиностроения. Машиностроительные материалы, свойства, область применения. Механизмы. Силы в механизмах и машинах. Электрический мотор, составные части (10 часов)

Теория (3 часа): классификация отраслей машиностроения. Машиностроительные материалы, свойства, область применения. Металлы, пластик, композиты, сплавы. Механизмы. Силы в механизмах и машинах (движущая, сопротивления, тяжести, инерции, реакции, трения). Электрический мотор, составные части. Ввод новых лексических конструкций и грамматического материала: deals/is concerned with, Present Passive, Comparing contrasting.

Практика (7 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорение. Составить инструкцию по техническому обслуживанию гоночного велосипеда. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Текущее тестирование на знание лексики, грамматических форм.

Самостоятельное изучение: герундия и инфинитива, случаев их применения.

Тема 5. Системы: центральное отопление, контроль бытовых приборов, холодильное оборудование. Транспортные средства. Тормозной диск и его принцип работы. Лазеры, область применения (12 часов)

Теория (4 часа): системы: центральное отопление, контроль бытовых приборов, холодильное оборудование. Транспортные средства. Велосипед гоночный, составные части, правила технического обслуживания во время гонок. Тормозной диск в автомобилях и мотоциклах, его принцип работы. Лазеры, область применения. Ввод новых лексических конструкций и грамматического материала: прилагательные времени, If/Unless sentences, описание причин, сравнение технических характеристик, Noun + noun compounds, Verbs and related nouns, Cause and effect. Verbs with -ize/-ise, Necessity: have to and need (to), Certainty.

Практика (8 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорение. Составить инструкцию по технике безопасности при работе в автомобильной

мастерской. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Текущее тестирование на знание лексики, грамматических форм.

Тема 6. Технические профессии. Карьера молодого инженера. Трудоустройство, правила написания резюме. Техническое обслуживание и ремонт. Робототехника (8 часов)

Теория (2 часа): виды технических профессий. Профорентация. Специфика работы отдельных профессий (на примере статей в газетах). Правила написания резюме, поведения при собеседовании при приеме на работу. Техническое обслуживание и ремонт. Робототехника. Ввод новых лексических конструкций и грамматического материала: модальные глаголы can/could, Concession: even if and although, Writing a CV and letter of application.

Практика (6 часов): аудирование, чтение специализированных текстов по вышеуказанным темам, отработка навыков быстрочтения, говорение. Ролевая игра-собеседование при приеме на работу, соответствие требованиям работодателя. Использование грамматических конструкций, отработанных в теоретическом блоке на практике. Текущее тестирование на знание лексики, грамматических форм.

Итоговое занятие (4 часа)

Практика (4 часа): инженер – профессия будущего. Подбор лексики для описательной части презентации по проекту. Повторение грамматических конструкций. Итоговое тестирование (все виды речевой деятельности).

Индивидуальное публичное выступление длительностью 3-5 минут на тему технического процесса/технологии/программы и т.д. Презентация на английском языке (до 10 слайдов).

1.4. ПЛАНИРУЕМЫЕ РЕЗУЛЬТАТЫ ОСВОЕНИЯ ПРОГРАММЫ

Планируемые результаты освоения данной программы отслеживаются по трем компонентам: *личностный, предметный и метапредметный*, что позволяет определить динамическую картину развития обучающегося.

Личностные результаты

В результате обучения по программе обучающийся (для всех уровней освоения языка):

- проявляет толерантность и уважение к другой культуре, к чужому мнению;
- имеет общечеловеческие качества личности: уважение, нравственность, патриотизм.

Метапредметные результаты

В результате обучения по программе обучающийся:

- проявляет психологические качества личности: любознательность, инициативность, трудолюбие, воля, настойчивость,

самостоятельность в приобретении знаний;

- имеет творческий и рациональный подход к решению поставленных задач;
- умеет работать с различными источниками информации;
- умеет работать в команде/паре, выстраивать эффективную коммуникацию со сверстниками и педагогами, выявлять релевантные навыки и компетенции друг друга и договариваться о сотрудничестве;
- имеет критическое мышление (анализ составляющих частей механизмов и определение отсутствующих деталей, эффективно-неэффективного поведения в случае инцидентов с использованием техники);
- умеет отстаивать свою точку зрения с использованием научно-обоснованных аргументов и применением межпредметного анализа учебно-познавательных задач;
- имеет навыки социального взаимодействия за счет расширения спектра проигрываемых социальных ролей в учебно-игровых ситуациях.

Предметные результаты

В результате обучения по программе обучающийся:

Знает:

- языковые конструкции разговорного и технического английского языка, приёмы написания текста в разной стилистике.

Умеет (базовый, начальный уровень владения языком):

- использовать в активной лексике 100 слов/фраз для коммуникации в технической сфере;
- правильно произносить английские звуки и правильно интонировать высказывания;
- строить диалогическую речь (диалоги знакомства) на английском языке.

Умеет (средний уровень владения языком):

- использовать в активной лексике 200 слов/фраз для коммуникации в технической сфере;
- строить диалогическую речь (передача инструкций, совместная починка) на английском языке;
- использовать в речи терминологии и языковые конструкции технического английского языка;
- использовать в речи грамматические конструкции, характерные технической тематике.

Умеет (углубленный, специализированный углубленный, специализированный уровень владения языком):

- использовать в активной лексике 300 слов/фраз для коммуникации в технической сфере;
- анализировать и переводить англоязычный текст, структурировать информацию, выделять главное, формулировать вопросы, вести деловую переписку;

- вести монологическую (самопрезентация, презентация партнера/проекта) и диалогическую речи (знакомство, передача инструкций, совместная починка) на английском языке;
- самостоятельно принимать решения коммуникативных задач на английском языке в рамках изученной тематики;
- читать техническую документацию: инструкции по безопасности использования различных механизмов и систем;

В соответствии с принципами организации деятельности детского технопарка «Кванториум» у обучающихся оценивается сформированность следующих компетенций.

Soft skills:

Социальные компетенции:

- коммуникабельность, умение работать в команде;
- грамотная устная речь;
- умение выступать на публике;
- адекватное принятие критики.

Интеллектуальные компетенции:

- умение определять проблемное поле в кейсе;
- любознательность;
- наблюдательность;
- креативность.

Волевые компетенции:

- ориентированность на результат;
- управление временем (работа в тайминге).

Лидерские компетенции:

- умение принимать решения;
- ответственность за выполнение поставленной задачи;
- умение разрешать конфликты при помощи педагога.

Hard skills:

- умение выделять и фиксировать основное содержание прочитанного или прослушанного текста;
- умение использовать вербальные (перифраз, синонимы, антонимы) и невербальные (жесты и мимику) средства в процессе создания собственных высказываний;
- умение использовать языковую и контекстуальную догадку;
- умение осуществлять технический перевод инструкции, описания прибора/проекта; использовать терминологию избранных областей знаний.

II. КОМПЛЕКС ОРГАНИЗАЦИОННО-ПЕДАГОГИЧЕСКИХ УСЛОВИЙ

2.1. КАЛЕНДАРНЫЙ УЧЕБНЫЙ ГРАФИК

Название модуля	Дата начала занятия	Дата окончания занятия	Количество учебных недель	Количество учебных занятий	Количество учебных часов
«Технический английский язык. Начальный уровень (CEF A1-A2)» (1 год обучения)	15 сентября	22 января	18	18	36
«Технический английский язык. Базовый уровень (CEF A1-A2)» (1 год обучения)	10 января	31 мая	18	18	36
«Технический английский язык. Средний уровень (CEF A2)» (2 год обучения)	01 сентября	31 мая	36	36	72
«Технический английский язык. Углубленный уровень (CEF A2-B1)» (3 год обучения)	01 сентября	31 мая	36	36	72
«Технический английский язык. Специализированный углубленный уровень (CEF B1)» (4 год обучения)	01 сентября	31 мая	36	36	72
«Технический английский язык. Специализированный уровень: Информационные технологии и основы машиностроения (CEF B1)» (5 год обучения)	01 сентября	31 мая	36	36	72

Праздничные неучебные дни: 4 ноября, 1-8 января, 8 марта, 23 февраля, 1 мая, 9 мая.

Каникулы: 1 июня-31 августа.

Сроки проведения промежуточной и итоговой аттестации

Название модуля	Срок проведения промежуточной аттестации	Срок проведения итоговой аттестации
«Технический английский язык. Начальный уровень (CEF A1-A2)» (1 год обучения)	с 20 по 27 ноября 2023	с 15 по 22 января 2024
«Технический английский язык. Базовый уровень (CEF A1-A2)» (1 год обучения)	с 18 по 25 марта 2024	с 25 по 31 мая 2024
«Технический английский язык. Средний уровень (CEF A2)» (2 год обучения)	с 22 по 31 января 2024	с 25 по 31 мая 2024
«Технический английский язык. Углубленный уровень (CEF A2-B1)» (3 год обучения)	с 22 по 31 января 2024	с 25 по 31 мая 2024
«Технический английский язык. Специализированный углубленный уровень (CEF B1)» (4 год обучения)	с 22 по 31 января 2024	с 25 по 31 мая 2024
«Технический английский язык. Специализированный уровень: Информационные технологии и основы машиностроения (CEF B1)» (5 год обучения)	с 22 по 31 января 2024	с 25 по 31 мая 2024

2.2. УСЛОВИЯ РЕАЛИЗАЦИИ ПРОГРАММЫ

2.2.1. Условия набора в творческое объединение

Принимаются все желающие на основании тестирования, определяющего наличие базовых знаний по предмету «Английский язык».

2.2.2. Условия формирования групп

Группы разновозрастные, работа в группах происходит с применением дифференцированного подхода. Набор разновозрастных групп производится по одному уровню знаний по предмету «Английский язык». Каждый модуль соответствует одному уровню владения английским языком. Набор обучающихся на следующие модули происходит по результатам итоговой аттестации по программе предыдущего уровня.

2.2.3. Кадровое обеспечение

Для реализации программы потребуется компетентный в социально-гуманитарной области специалист с педагогическим образованием по специализации иностранные языки (английский язык), первой или высшей квалификационной категории. Педагог должен обладать знаниями в области возрастной психологии, дидактики, методики преподавания и воспитания, иметь высокий личностный и культурный уровень, творческий потенциал, владеть знаниями и умениями в рамках программы, уметь строить отношения с обучающимися на принципах сотрудничества.

2.2.4. Материально-техническое обеспечение

Перечень материалов и оборудования из расчета на одного обучающегося или на одну группу обучающихся.

Компьютерное и презентационное оборудование:

- интерактивная панель – 1 шт.;
- ноутбук – 1 шт.;
- флипчарт магнитно-маркерный – 1 шт.

Оснащение кабинета:

– мебель – стол для педагога, ученические парты и стулья, шкафы, стеллажи.

Печатная продукция:

- рабочие тетради – 10-12 шт.;
- плакаты;
- канцелярские принадлежности:
- карандаш простой – 12 шт.;
- ручка шариковая – 12 шт.;
- ластик – 4 шт.

Учебный материал: учебное пособие (учебник курса для обучающегося; книга для учителя, аудио-диск).

Наградные материалы: сертификаты, грамоты, дипломы, удостоверения.

Информационное обеспечение – использование сети Интернет.

2.2.5. Рабочая программа

Дополнительная общеобразовательная общеразвивающая программа «Технический английский-1» включает в себя рабочие программы:

- «Технический английский язык. Начальный уровень (CEF A1-A2)»;
- «Технический английский язык. Базовый уровень (CEF A1-A2);
- «Технический английский язык. Средний уровень (CEF A2)»;
- «Технический английский язык. Углубленный уровень (CEF A2-B1)»;
- «Технический английский язык. Специализированный углубленный уровень (CEF B1)»;
- «Технический английский язык. Специализированный уровень: Информационные технологии и основы машиностроения (CEF B1)».

2.2.6. Рабочая программа воспитания

1. Цель воспитания – создание условий для формирования творческой, активной личности, способной к самостоятельному принятию решений, саморазвитию и самосовершенствованию.

Особенности организуемого воспитательного процесса: активизация познавательных и творческих способностей обучающихся на основе методических подходов, лежащих в основе деятельности детских

технопарков «Кванториум», обеспечивающих гармоничное развитие soft- и hard-компетенций.

2. Виды, формы и содержание деятельности

Работа с коллективом обучающихся:

- обучение умениям и навыкам организаторской деятельности, самоорганизации, формированию ответственности за себя и других;
- содействие формированию активной гражданской позиции;
- воспитание сознательного отношения к труду, к природе, к своему городу.

Работа с родителями:

- организация системы индивидуальной и коллективной работы с родителями (тематические беседы, собрания, индивидуальные консультации);
- содействие сплочению родительского коллектива и вовлечение в жизнедеятельность творческого объединения (организация и проведение открытых занятий для родителей в течение года, проведение совместных мастер-классов, приглашение на концерты, праздники, соревнования и т.д.).

3. Планируемые результаты и формы их демонстрации

Результат воспитания представляет собой высокий уровень коммуникативных компетенций, готовность к принятию ответственных решений.

2.2.7. Календарный план воспитательной работы

№ п/п	Направление воспитательной работы	Наименование мероприятия	Срок выполнения	Планируемый результат
1	Ценности научного познания	1. Участие в проведении Дня открытых дверей (День знаний)	сентябрь	Привлечение внимания обучающихся и их родителей к деятельности учреждения и творческого объединения
		2. День российской науки	февраль	Повышение информированности обучающихся об успехах современной науки
		3. День запуска первого искусственного спутника Земли (1957)	октябрь	Повышение информированности обучающихся о новых технологиях в области освоения космоса
		4. День детских изобретений	январь	Осмысление опыта наблюдений, стремление совершенствовать пути достижения индивидуального и коллективного благополучия
2	Духовно-нравственное	1. Участие в мероприятиях, посвященных Дню пожилого человека	октябрь	Воспитание у обучающихся чувства уважения, внимания, чуткости к пожилым людям

		2. День матери	ноябрь	Воспитание благодарности к матерям
3	Гражданское	1. Всемирный день учителя	октябрь	Воспитание уважения к учителю и учительскому труду
		2. День Конституции Российской Федерации	декабрь	Воспитание уважения к высшему нормативному правовому акту РФ
		3. День Победы	май	Воспитание гражданственности и патриотизма

2.3. ФОРМЫ АТТЕСТАЦИИ/КОНТРОЛЯ

Для отслеживания результативности образовательной деятельности по рабочей программе проводятся: входной, текущий, промежуточный и итоговый контроль.

Входная диагностика (входной контроль) проводится с целью выявления первоначального уровня знаний, умений и возможностей обучающихся.

Формы: тестирование.

Текущий контроль осуществляется на занятиях для отслеживания уровня освоения учебного материала программы и развития личностных качеств обучающихся.

Формы:

- наблюдение;
- опрос;
- выполнение практических работ;
- тестирование.

Промежуточная аттестация (промежуточный контроль) предусмотрена с целью выявления уровня освоения программы обучающимися и корректировки процесса обучения.

Формы:

- тестирование.

Итоговая аттестация (итоговый контроль) с целью оценки уровня и качества освоения обучающимися дополнительной общеобразовательной общеразвивающей программы (всего периода обучения по программе).

Формы:

- тестирование;
- презентация проекта.

Для отслеживания и фиксации образовательных результатов используются:

для текущего контроля:

- результаты тестирования;

для промежуточной и итоговой аттестации:

- протоколы аттестации.
- портфолио;
- видео- и фотоматериалы.

2.4. ОЦЕНОЧНЫЕ И ДИАГНОСТИЧЕСКИЕ МАТЕРИАЛЫ

Оценка уровня достижения результатов по программе обеспечивается комплексом согласованных между собой оценочных средств.

Оценка уровня освоения программы осуществляется по следующим показателям:

- личностное развитие;
- метапредметные умения и навыки;
- предметные умения и навыки;
- теоретическая и практическая подготовка детей.

По каждому из показателей выделены критерии и определены уровни результативности: высокий, средний, низкий. Они занесены в таблицу ниже.

Показатели (оцениваемые параметры)	Критерии	Степень выраженности оцениваемого качества	Методы диагностики
Предметные результаты			
1. Теоретическая подготовка: 1.1. Теоретические знания (по основным разделам учебно-тематического плана программы)	Соответствие теоретических знаний программным требованиям	- низкий уровень (овладел менее чем ½ объема знаний)	Индивидуальный письменный и устный опрос, фронтальный опрос; тестирование
		- средний уровень (овладел более ½ объема знаний)	
		- высокий уровень (освоил практически весь объем знаний данной программы)	
1.2. Владение специальной терминологией	Осмысленность и правильность использования	- низкий уровень (избегает употреблять спец. термины)	
		- средний уровень (сочетает специальную терминологию с бытовой)	
		- высокий уровень (термины употребляет осознанно и в полном соответствии с их содержанием)	
2. Практическая подготовка: 2.1. Практические умения и навыки, предусмотренные программой (по основным разделам)	Соответствие практических умений и навыков программным требованиям	низкий уровень (овладел менее чем ½ предусмотренных умений и навыков);	1. Описание технического устройства на английском языке 2. Описание технического процесса/системы на английском языке 3. Ролевые игры по темам (отработка вида речевой деятельности – говорение) 4. Выполнение практической работы (отработка комбинаций и алгоритмов игры через дидактические задания).
		- средний уровень (овладел более ½ объема освоенных умений и навыков);	
		- высокий уровень (овладел практически всеми умениями и навыками, предусмотренными программой)	
2.3. Творческие навыки	Креативность в выполнении практических заданий	- низкий (начальный - элементарный, выполняет лишь простейшие практические задания)	
		- средний (репродуктивный - задания выполняет на основе образца)	
		- высокий (творческий - выполняет практические	

		задания с элементами творчества)	
Метапредметные результаты			
3. Метапредметные умения и навыки: 3.1. Учебно-интеллектуальные умения: 3.1.1. Умение подбирать и анализировать спец. литературу	Самостоятельность в подборе и анализе литературы	- низкий (испытывает серьезные затруднения, нуждается в помощи и контроле педагога)	Наблюдение. Методика «Мотивы учебной деятельности» https://multiurok.ru/blog/diaghnostika-motivov-uchiebnoi-deiatelnosti.html
		- средний (работает с литературой с помощью педагога и родителей)	
		- высокий (работает самостоятельно)	
3.1.2. Умение пользоваться компьютерными источниками информации	Самостоятельность в пользовании	Уровни по аналогии с п. 3.1.1. - низкий -средний -высокий	Методика «Уровень общительности» (В.Ф. Ряховский) Тест на коммуникабельность и общительность Ф. Ряховского для подростков (testograd.com)
3.1.3. Умение осуществлять учебно-исследовательскую работу (рефераты, исследования, проекты)	Самостоятельность в учебно-исследовательской работе	Уровни по аналогии с п. 3.1.1. - низкий -средний -высокий	
3.2. Учебно - коммуникативные умения: 3.2.1. Умение слушать и слышать педагога	Адекватность восприятия информации, идущей от педагога	Уровни по аналогии с п. 3.1.1. - низкий -средний -высокий	
3.2.2. Умение выступать перед аудиторией	Свобода владения и подачи подготовленной информации	Уровни по аналогии с п. 3.1.1. - низкий -средний -высокий	Наблюдение
3.3. Учебно-организационные умения и навыки: 3.3.1. Умение организовать свое рабочее (учебное) место	Самостоятельная подготовка и уборка рабочего места	Уровни по аналогии с п. 3.1.1. - низкий -средний -высокий	
3.3.2. Навыки соблюдения ТБ в процессе деятельности	Соответствие реальных навыков соблюдения ТБ программным требованиям	- низкий уровень (овладел менее чем ½ объема навыков соблюдения ТБ); - средний уровень (овладел более ½ объема освоенных навыков) - высокий уровень (освоил практически весь объем навыков)	
3.3.3. Умение аккуратно выполнять работу	Аккуратность и ответственность в работе	- низкий уровень - средний уровень - высокий уровень	

Личностные результаты			
4. Личностное развитие 4.1. Организационно-волевые качества: Терпение, воля, самоконтроль	Способность выдерживать нагрузки, преодолевать трудности. Умение контролировать свои поступки	- низкий (терпения хватает меньше чем на ½ занятия, волевые усилия побуждаются извне, требуется постоянный контроль извне)	Наблюдение. Методика исследования ценностных ориентаций личности (модификация Е.Б. Фанталовой) https://psytests.org/life/uscd.html
		- средний (терпения хватает больше чем на ½ занятия, периодически контролирует себя сам)	
		- высокий (терпения хватает на все занятие, контролирует себя всегда сам)	
4.2. Ориентационные качества: 4.2.1. Самооценка	Способность оценивать себя адекватно реальным достижениям	- низкий уровень (не умеет оценивать свои способности в достижении поставленных целей и задач, преувеличивает или занижает их)	
		- средний уровень (умеет оценивать свои способности, но знает свои слабые стороны и стремится к самосовершенствованию, саморазвитию)	
		- высокий уровень (адекватно оценивает свои способности и достижения)	
4.2.2. Мотивация, интерес к занятиям в ТО	Осознанное участие детей в освоении программы	- низкий уровень (интерес продиктован извне)	
		- средний уровень (интерес периодически поддерживается самим)	
		- высокий уровень (интерес постоянно поддерживается самостоятельно)	
4.3. Поведенческие качества: 4.3.1. Конфликтность	Отношение детей к столкновению интересов (спору) в процессе взаимодействия	- низкий уровень (периодически провоцирует конфликты)	
		- средний уровень (в конфликтах не участвует, старается их избегать)	
		- высокий уровень (пытается самостоятельно уладить конфликты)	
4.3.2. Тип сотрудничества (отношение детей к общим делам д/о)	Умение воспринимать общие дела, как свои собственные	- низкий уровень (избегает участия в общих делах)	
		- средний уровень (участвует при побуждении извне)	
		- высокий уровень (инициативен в общих делах)	

2.5. МЕТОДИЧЕСКОЕ ОБЕСПЕЧЕНИЕ

Методы обучения по программе

Исходя из поставленной цели при реализации данной программы особое значение имеют следующие методы обучения по характеру познавательной деятельности обучающихся (И.Я. Лернер, М.Н. Скаткин):

- объяснительно-иллюстративный (информационно-рецептивный) – при изучении нового материала, выполнение практических работ, ликвидации пробелов знаний по пройденному материалу;
- репродуктивный – при отработке навыков работы по заданному алгоритму;
- проблемное изложение – при изучении нового материала, углубленном изучении отдельных проблемных вопросов, закреплении пройденного материала, при организации проектной деятельности;
- частично-поисковый (эвристический) – при изучении нового материала, закреплении пройденного материала, углубленном изучении отдельных проблемных вопросов, при организации проектной деятельности;
- исследовательский – при изучении нового материала, закреплении пройденного материала, углубленном изучении отдельных проблемных вопросов, при организации проектной деятельности.

Все многообразие применяемых в ходе реализации программы методов можно объединить в следующие смысловые группы:

1. Словесные методы обучения.
2. Методы практической работы: упражнение, письменные работы конспект, выписки, составление тезисов (доклада), реферат, графические работы (составление таблиц, схем, диаграмм, графиков, чертежей, составление структурно логических схем, заполнение матриц, работа с картами).
3. Метод проблемного обучения: проблемное изложение материала, выделение противоречий данной проблемы, эвристическая беседа; самостоятельная постановка, формулировка и решение проблемы обучающимися, поиск и отбор аргументов, фактов, доказательств, самостоятельный поиск ответа обучающимися на поставленную проблему.
4. Проектно-конструкторские методы: разработка проектов, программ; построение гипотез, моделирование ситуации, создание новых способов решения задачи, создание моделей, конструкций, проектирование (планирование) деятельности, конкретных дел.
5. Наглядный метод обучения: наглядные материалы; таблицы, схемы, диаграммы, чертежи, графики; демонстрационные материалы: модели, приборы, предметы; демонстрационные опыты; видеоматериалы.
6. Использование на занятиях активных методов познавательной деятельности: конференция, олимпиада, мозговая атака, встреча со специалистами, конкурс.

Использование различных методов не остается постоянным на протяжении учебного процесса, интенсивность применения методов зависит

от контингента обучающихся, поставленных целей и задач конкретного занятия.

Педагогические технологии

При реализации программы используются следующие педагогические технологии:

- технология группового обучения – для организации совместных действий, коммуникаций, общения, взаимопонимания и взаимопомощи;
- технология дифференцированного обучения – применяются задания различной сложности в зависимости от интеллектуальной подготовки обучающихся;
- технология эдьютейнмент – для воссоздания и усвоения обучающимися изучаемого материала, общественного опыта и образовательной деятельности;
- технология проблемного обучения – для творческого усвоения знаний, поэтапного формирования умственных действий, активизации различных операций мышления;
- информационно-коммуникационные технологии – применяются для расширения знаний, выполнения заданий, создания и демонстрации презентаций на занятиях, проведения диагностики и самодиагностики.

Информационные, дидактические материалы к занятиям

Справочная литература, книги, энциклопедии.

Техника безопасности

Изучение вопросов безопасности труда организуется и проводится на всех стадиях образовательного процесса с целью формирования у обучающихся сознательного и ответственного отношения к вопросам личной безопасности и безопасности окружающих.

Обучение обучающихся в виде инструктажей с регистрацией в журнале учета работы педагога дополнительного образования в творческом объединении по правилам безопасности проводится перед началом всех видов деятельности:

- теоретические и практические занятия;
- массовые мероприятия.

ЛИТЕРАТУРА И ЭЛЕКТРОННЫЕ РЕСУРСЫ

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ПРИЛОЖЕНИЯ

Приложение 1

Оценочные и диагностические материалы

Оценивание тестовых работ по техническому английскому

Номинальная шкала предполагает, что за правильный ответ к каждому заданию выставляется один балл, за не правильный — ноль. В соответствии с номинальной шкалой, оценивается всё задание в целом, а не какая-либо из его частей.

В заданиях с выбором нескольких верных ответов, заданиях на установление правильной последовательности, заданиях на установление соответствия, заданиях открытой формы можно использовать порядковую шкалу. В этом случае баллы выставляются не за всё задание, а за тот или иной выбор в каждом задании, например, выбор варианта, выбор соответствия, выбор ранга, выбор дополнения. В соответствии с порядковой шкалой за каждое задание устанавливается максимальное количество баллов, например, три. Три балла выставляются за все верные выборы в одном задании, два балла – за одну ошибку, один – за две ошибки, ноль — за полностью неверный ответ. Правила оценки всего теста. Общая сумма баллов за все правильные ответы составляет наивысший балл, например 90 баллов.

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста. Критерии оценивания тестовых работ в процентном соотношении имеют следующие диапазоны:

- менее 50% - низкий уровень;
- 50%-70% - средний уровень;
- 70% и более - высокий уровень.

Критерии оценивания проектной работы по английскому языку

1.Текст работы:

Содержание и соответствие теме

- текст работы соответствует заявленной теме, тема раскрыта полностью с привлечением интересных фактов по теме;
- текст работы соответствует заявленной теме, тема раскрыта не до конца (недостаточное количество интересных фактов, в основном уже известная информация);
- текст работы соответствует заявленной теме, тема раскрыта слабо (мало информации, неинтересно);
- текст работы не соответствует заявленной теме.

Структура работы

- текст работы выстроен логично, присутствует вступление и заключение, список литературы;
- текст работы в целом выстроен логично, но отсутствует вступление / заключение и / или список литературы;
- текст работы выстроен нелогично, отсутствует вступление и заключение, список литературы.

2.Презентация:

Содержание презентации

- соблюден требуемый объем презентации; используется разнообразный наглядный материал (фото, картинки, карты, таблицы), на слайдах отсутствует избыточная информация;
- соблюден требуемый объем презентации, но недостаточно используется наглядный материал или несколько слайдов содержат избыточную информацию;
- требуемый объем презентации не соблюден или мало наглядного материала и практически все слайды перегружены информацией.

Визуальное оформление

- презентация красиво оформлена, хорошо подобран цвет фона и шрифта, размер используемого шрифта удобен для восприятия;
- презентация в целом хорошо оформлена, но имеются некоторые недостатки в подборе цвета фона и шрифта и / или размер шрифта на некоторых слайдах труден для восприятия;
- презентация скучно оформлена, плохо подобран цвет фона и шрифта и / или используемый на слайдах шрифт неудобен для восприятия.

Лексико-грамматическое оформление, орфография и пунктуация

- в презентации допущено не более двух грамматических / лексических и 3 орфографических / пунктуационных ошибок;
- в презентации допущено не более четырех грамматических / лексических и 4 орфографических / пунктуационных ошибок;
- в презентации допущены многочисленные грамматические / лексические и орфографические / пунктуационные ошибки.

3.Выступление:

Представление работы

- выступающий уложился в отведенное для представления проектной работы время; текст работы рассказывался с опорой на печатный текст;
- выступающий уложился в отведенное для представления проектной работы время, однако текст работы по большей части читался с листа, чем рассказывался;
- выступающий не уложился в отведенное для представления проектной работы время или текст работы полностью читался с листа.

Лексико-грамматическое оформление речи

- в речи использована разнообразная лексика, понятная аудитории, допущено не более 2-х языковых ошибок, не затрудняющих понимание;
- в речи использована разнообразная лексика, в целом понятная аудитории, допущено не более 4-х негрубых языковых ошибок;
- в речи использована разнообразная лексика, однако присутствует несколько слов, незнакомых для аудитории, которые затрудняют понимание сказанного, допущено не более 6-ти негрубых языковых ошибок или 2-3 грубых ошибок;
- допущены многочисленные языковые ошибки, которые затрудняют понимание сказанного.

Фонетическое оформление речи

- речь понятна: практически все звуки в потоке речи произносятся правильно: не допускаются фонематические ошибки (меняющие значение высказывания), соблюдается правильный интонационный рисунок и темп речи;
- в целом, речь понятна, но присутствуют фонетические ошибки (не более 5) или фонематические (не более 2);
- речь почти не воспринимается на слух из-за неправильного произношения многих звуков и многочисленных фонематических ошибок.

4.Ответы на вопросы:

- выступающий четко и грамотно ответил на все заданные аудиторией вопросы;
- выступающий в целом справился с ответами на вопросы аудитории;
- выступающему не удалось ответить на большинство вопросов аудитории.

Максимально за каждый из 4-х блоков по 5 баллов.

Максимум 100 баллов (100 %):

менее 50% - низкий уровень;

50%-75% - средний уровень;

75% и более - высокий уровень.

Критерии оценки метапредметных результатов методом наблюдения.

Оценка способности – есть/нет.

1. Понимание:

- понимающее чтение (ч-з вопросы на понимание – задаёт вопросы, основанные на собственной интерпретации материала, содержащие собственный вывод или гипотезу);
- понимающее слушание (ч-з способность к обобщению и отношению к дискуссии).

2. Содержательная активность:

- работа в группе (слушает, дополняет, включён в работу);
- коммуникация с педагогом (содержательная, без попытки манипуляции);
- коммуникация между группами (включён в обсуждение, выстраивает дискуссию, дополняет версию своей группы или версии других групп).

3. Различение:

- выявление основания для различения (через идеализацию – выявляет признак, на основании которого строится различие одного от иного);
- фиксация различий между абстракцией и идеализацией как способом работы.

4. Способность к схематизации:

- выявление главного на рисунке (чтение рисунка);
- изображение главного в понятных для других символах;
- перевод рисунка в схему.

5. Позиционность:

- удержание ученической позиции (не скатывается в обиду или раздражение, не настаивает на собственной правоте из упрямства, но содержательно отстаивает свою точку зрения).

6. Способность к рефлексии:

- Что делали?
- Чему научился?
- Каким образом пришли к выводу?
- Личное отношение к процессу обучения.

«Технический английский язык. Начальный уровень (CEF A 1-A 2)»

Входная диагностика (тестирование) для определения общего уровня предметных знаний September test

1. Choose a/b/c

1	I ... new to the school.	a. is b. are c. am
2	Who's Kathy? She's Laura's	a. father b. brother c. mother
3	I'm American. I'm from	a. the USA b. the UK c. Canada
4	Our school starts 9 o'clock.	a. in b. at c. on
5	This is House	a. Kathy's b. Kathy c. you
6	Mr. Smith got a big family.	a. have b. is c. has
7	My dad speak French and English.	a. like

	b. can c. must
--	-------------------

2. Translate phrases:

a) scuba diving	e) sunbathing
b) sailing	f) white water rafting
c) hiking	g) jet skiing
d) fishing	

3. Read the text, choose true or false.

Hi Ann,

I want to tell you about myself. My name's Sally and I'm twelve years old. I'm from London. I'm in year 7 at secondary school and my favourite subject is Science. My best friend is Jennifer. I can tell her all my secrets and we always have fun.

I live with my mum, my dad, my little brother and my grandma in a flat on the fourth floor. My dad is a pilot and he can speak French. He's very clever. Our flat isn't very big but my bedroom is fantastic! I like reading and I've got a great book collection. I'm very proud of it. Do you like reading? Have you got any collection? Tell me about your family.

Please, write me soon.

Love,
Sally.

1. The letter is from Ann.
2. Sally is from the UK.
3. Sally's seven years old.
4. Sally likes Science.
5. Jennifer is Sally's best friend.
6. Sally's mother can speak French.
7. Sally's father's a pilot.
8. Sally lives in a big house with her family.
9. Sally has a bike collection.
10. Sally's proud of her collection.

Ключ

Вопрос	Предполагаемый вариант ответа	Балл
1	Содержание правильного ответа: 1) с; 2) с; 3) а; 4) b; 5) а; 6) с; 7) b	76 1 балл за каждый правильный ответ.
2	Содержание правильного ответа: а) ныряние с аквалангом; b) хождение под парусом; с) пеший туризм; d) рыбалка/рыбная ловля; е) солнечные ванны; f) сплав по горной реке; g) катание на водном мотоцикле;	76 1 балл за каждый правильный ответ.
3	Содержание правильного ответа: 1-F; 2-; 3-T; 4-F; 5-T; 6-F; 7-T; 8-F; 9- F;10-T.	106 1 балл за каждый правильный ответ.
Итого		Max 24 б.

Критерии оценивания:

0-11б. – низкий уровень

12-19б. – средний уровень

20-24б. – высокий уровень

Текущий контроль

Technical English Level 1 (Elementary)

Progress Test 1 (CB1 Units 1 – 2)

Try to answer all 60 questions.

SECTION 1: VOCABULARY

1 Write instructions for the opposite actions. Use the words in the bottom box to replace the words in italics.

For example:

Take off your coat. Put on your coat.

push, lower, tighten, off, closed, pick up, down, from

- 1 *Raise* the temperature to 30 °C. _____
- 2 *Put down* your tools. _____
- 3 *Pull* the handle *up*. _____
- 4 *Loosen* the nuts. _____
- 5 Switch *on* the electricity. _____

2 Underline the correct word in brackets.

- 6 The front of the aeroplane is called the (*nose/ tail*).
- 7 Please stand on the (*truck/ deck*) of the boat.
- 8 The speed of the engine is 5000 (*rpm/ kW*).
- 9 Please cut that wood. Use the (*spanner/ chisel*).

3 Delete one wrong word from each list:

- 10 Fixings: *nails, bolts, nuts, screwdrivers, washers, staples, screws*
- 11 Hand tools: *spanners, screwdrivers, chisels, hammers, axles*
- 12 Parts of a skateboard: *wheels, axles, deck, nose, tail, helmet, truck*

SECTION 2: GRAMMAR

4 Rearrange the word order. Write correctly.

- 13 Where you are from? _____
- 14 Take off the tyre the bicycle. _____
- 15 What this is called? _____
- 16 Put on the table the spanner. _____

5 Add a word in one of the spaces.

do are is

- 17 What (____) her name?
- 18 What (____) you do?
- 19 What colour (____) you want?
- 20 What (____) those called in English?
- 21 How (____) you spell your name?

6 Insert the correct question word.

What What's How Where

- 22 _____ your phone number?
- 23 _____ size do you want?
- 24 _____ many nails do you need?
- 25 _____ is Jamal from?
- 26 _____ are these called?

7 Put two words in each gap. Use one from each box.

For example:

Q: Am I correct? A: Yes, you are.

I, you, he, they, it

am, are, is, aren't, isn't

- 27 Q: Are you an electrician? A: Yes, _____.
- 28 Q: Is Luis from France? A: No, _____.
- 29 Q: Are the switches on? A: No, _____.
- 30 Q: Is the hammer on the table? A: Yes, _____.

SECTION 3: READING

8 Complete the sentences. Write a letter from A-J in each space.

- 31 Put the hammer _____
- 32 Take the hammer _____
- 33 Put the wheels _____
- 34 Take the wheels _____
- 35 Tighten the nuts. _____
- 36 Loosen the screws. _____
- 37 What size _____
- 38 I need _____
- 39 What are these called _____
- 40 Hammer the nails _____

- A off the axle.
- B Use the spanner.
- C do you need?
- D in English?
- E into the wood.
- F Use the screwdriver.
- G on the table.
- H some bolts, please.
- I off the table.
- J on the axle.

SECTION 4: WRITING

9 Write these out in words.

- 41 15 km/h _____
- 42 MON 30th AUG at 14.45 _____

10 Write eight instructions: How to change a wheel on a small toy

- 43 spanner – off – table _____
- 44 loosen – nuts _____
- 45 nuts – off – old wheel _____
- 46 old wheel – off – axle _____
- 47 new wheel – on – axle _____
- 48 nuts – on – new wheel _____
- 49 tighten – nuts _____
- 50 spanner – on – table _____

SECTION 5: LISTENING

Track 2

11 Listen and complete this conversation in a shop. A is the customer. B is the shopkeeper. Write 1 or 2 words in each gap.

A: Hello.

B: Good morning. What can I (51)_____ for you?

A: (52)_____ a spanner, please.

B: What size do you need?

A: Erm, I think it's 10 millimetres.

B: OK. Here you are. One (53)_____ spanner.

A: Thanks. And I need (54)_____, please.

B: Some nuts, did you say? OK, what size do you need?

A: Erm ... 7 mil.

B: Right. And (55)_____ do you need?

A: Four.

B: Right. Here (56)_____. Anything else?

A: Yes, I need (57)_____, please.

B: (58)_____ ?

A: M5.

B: And (59)_____ M5 bolts do you think you need?

A: Eight, (60)_____ .

B: OK, here you are.

A: Thanks.

Technical English Level 1 (Elementary)

Progress Test 1 (Units 1 – 2) Answer Key

Section 1: Vocabulary

1 Lower, from / 2 Pick up / 3 Push, down / 4 Tighten / 5 off / 6 nose / 7 deck / 8 rpm / 9 chisel / 10 screwdrivers / 11 axles / 12 helmet

Section 2: Grammar

13 Where are you from? / 14 Take the tyre off the bicycle. / 15 What is this called? / 16 Put the spanner on the table. / 17 is / 18 do / 19 do / 20 are / 21 do / 22 What's / 23 What / 24 How / 25 Where / 26 What / 27 I am / 28 he isn't / 29 they aren't / 30 it is

Section 3: Reading

31 G / 32 I / 33 J / 34 A / 35 B / 36 F / 37 C / 38 H / 39 D / 40 E

Section 4: Writing

41 fifteen kilometres per hour / 42 Monday the thirtieth of August at fourteen forty-five / 43 Take the spanner off the table. / 44 Loosen the nuts. / 45 Take the nuts off the old wheel. / 46 Take the old wheel off the axle. / 47 Put the new wheel on the axle. / 48 Put the nuts on the new wheel. / 49 Tighten the nuts. / 50 Put the spanner on the table.

Section 5: Listening

51 do / 52 I need / 53 ten millimetre / 54 some nuts / 55 how many / 56 you are / 57 some bolts / 58 What size / 59 how many / 60 please

Name _____

Class _____

Try to answer all 60 questions.

SECTION 1: VOCABULARY

1 Delete one wrong item in each list.

- 1 Please bring me a pair of _____. *scissors, jaws, pliers*
2 A helicopter can fly vertically _____. *upwards, downwards, diagonally*
3 An aeroplane can _____. *ascend, descend, reverse*
4 Operate the _____ with your hand. *joystick, slider, switch, pedal*
5 A solar panel _____ sunlight into electricity. *produces, changes, converts*
6 A car can _____. *drive sideways, go backwards, turn to the left*
- 7 The tennis racket has a strong _____. *shaft, head, handle, blade*
8 The _____ is a power source for the radio. *generator, antenna, solar panel, mains electricity*
9 A helicopter can _____ on its vertical axis. *rotate, turn, control*

2 Look at the phrase in italics. Write the opposite location to the phrase given.

For example:

He is *behind* you. He is *in front of* you.

- 10 The switch is *to the right of* the door. _____
11 Your saw is on the toolboard. It's *at the top, on the left*. _____
12 This torch has an *external* battery. _____

SECTION 2: GRAMMAR

3 Underline the correct form of the verb in brackets.

- 13 When you (*push/ pushes*) the lever forwards, the forks (*tilt/ tilts*) up.
14 When the driver (*rotate/ rotates*) the wheel to the right, the truck (*move/ moves*) right.

4 Delete the wrong word. Write the correct word in the space.

- 15 How many blades do this knife have? _____
16 Does this pair of pliers has strong jaws? _____
17 Can a plane flies vertically upwards? _____
18 Do this radio use batteries or mains electricity? _____

5 Put the words below into correct sentence order.

- 19 Where the adapter is for this computer? _____
20 How many directions this robot can move in? _____

6 Insert a slash (/) where the word is missing. Write the missing word in the space.

- 21 What a thermometer measure? _____
22 What solar panels do? _____

7 Change these statements into the negative.

For example:

The adapter is on the table. The adapter isn't on the table.

- 23 These speakers have long cables. _____
24 Motorbikes can move backwards. _____
25 This survival tool has a pair of pliers. _____
26 Solar panels convert electricity into sunshine. _____

8 Complete the short answers. Write two words in each space, one from each box.

he, they, it

is, isn't, are, aren't, do, don't, does, doesn't, can, can't

- 27 Are the levers above the steering wheel? No, _____.
- 28 Do compasses point to the North? Yes, _____.
- 29 Can the mechanics repair my car? No, _____.
- 30 Does your house have a solar panel? No, _____.

SECTION 3: READING

9 Complete the sentences. Write a letter from A-L in each space.

- 31 A car has _____
- 32 The steering wheel is in _____
- 33 The two pedals are _____
- 34 The brake pedal is to _____
- 35 The steering wheel _____
- 36 When you turn the steering wheel to the left and right, _____
- 37 The pedals _____
- 38 Press the accelerator pedal _____
- 39 When you press _____
- 40 A car can _____
- 41 It can also turn _____
- 42 But cars can't _____
- A control the speed of the car.
- B the brake pedal, the car stops.
- C move forwards and backwards.
- D to the left and to the right.
- E and the car goes fast.
- F move sideways.
- G a brake pedal, an accelerator pedal, and a steering wheel
- H the centre of the control panel.
- I controls the direction of the car.
- J the car moves to the left and right.
- K below the steering wheel.
- L the left of the accelerator pedal.

SECTION 4: WRITING

10 Complete these nine sentences about a forklift truck. Answer the question in brackets above each sentence. Use the information in italics.

- 43 (What does a forklift truck do? *lift, move, heavy boxes*)
A forklift truck _____
- 44 (Does it have a petrol engine? *no*)
It _____
- 45 (What power source does it use? *electricity*)
It _____
- 46 (What can a forklift truck do? *forwards, backwards, to left, to right*)
A forklift truck _____
- 47 (Can it move sideways? *no*)
But it _____
- 48 (What can the forks do? *move up, down, tilt forwards, backwards*)
The forks _____
- 49 (Where is the direction lever? *left of steering wheel*)
The direction lever _____
- 50 (What happens when you pull this lever backwards? *truck, reverse*)
When you _____

SECTION 5: LISTENING

11 Listen and fill in the gaps.

A fast CD-ROM (51)_____ (52)_____ at 9,800 (53)_____ per minute.
Sound (54)_____ at (55)_____ 1,200 kilometres per hour.
The maximum land speed (56)_____ about 1,228 (57)_____ per hour.
The maximum speed of a boat on water is about 154 metres (58)_____ second.
The earth (59)_____ at 1000 miles per hour.
The earth (60)_____ around the sun at 67,000 miles per hour.

Technical English Level 1 (Elementary)

Progress Test 2 (Units 3 – 4) Answer Key

Section 1: Vocabulary

1 jaws / 2 diagonally / 3 reverse / 4 pedal / 5 produces / 6 drive sideways / 7 blade / 8 antenna / 9 control / 10 to the left of / 11 at the bottom, on the right / 12 internal

Section 2: Grammar

13 push, tilt / 14 rotates, moves / 15 do, does / 16 has, have / 17 flies, fly / 18 Do, Does / 19 Where is the adapter for this computer? / 20 How many directions can this robot move in? / 21 What _does a / 22 What _do solar / 23 These speakers don't have long cables. / 24 Motorbikes can't move backwards. / 25 This survival tool doesn't have a pair of pliers. / 26 Solar panels don't convert electricity into sunshine. / 27 they aren't / 28 they do / 29 they can't / 30 it doesn't

Section 3: Reading

31 G / 32 H / 33 K / 34 L / 35 I / 36 J / 37 A / 38 E / 39 B / 40 C / 41 D / 42 F

Section 4: Writing

43 A forklift truck lifts and moves heavy boxes. / 44 It doesn't have a petrol engine. / 45 It uses electricity. / 46 A forklift truck can move forwards, backwards, to the left and to the right. / 47 But it can't move sideways. / 48 The forks can move up and down, and they can tilt forwards and backwards. / 49 The direction lever is to the left of the steering wheel. / 50 When you pull this lever backwards, the truck reverses.

Section 5: Listening

51 can / 52 rotate / 53 revolutions / 54 travels / 55 about / 56 is / 57 kilometres / 58 per / 59 rotates / 60 moves

Name _____ Class _____

Technical English Level 1 (Elementary)

Progress Test 3 (CB1 Units 5 – 6)

There are 60 questions.

SECTION 1: VOCABULARY

1 Complete the sentences with the words from the box below.

soft / brittle / tough / hard / flexible / corrosion-resistant / rigid / heat-resistant

- 1 If you drop a steel beam, it doesn't break. It's a very _____ material.
- 2 You can't bend a concrete beam. It's a very _____ material.
- 3 You can only cut glass with a diamond, but not with a knife. It's a _____ material.
- 4 This ceramic doesn't burn or melt at high temperatures. It's _____.
- 5 You can bend this plastic a little, but it doesn't break. It's _____.
- 6 You can break glass easily if you drop it. It's a very _____ material.
- 7 You can cut or scratch this plastic easily. It's very _____.
- 8 Aluminium doesn't corrode in water or chemicals. It's a _____ metal

2 Match the items with their descriptions. Write a letter from A-D in each space.

- 9 They're made of aluminium. They cool car engines. _____
- 10 They're made of fibreglass and polystyrene. They are on racing cars. _____

- 11 They're made of a heat-resistant ceramic. _____
 12 They have a shaft and head made of graphite . _____
 A tennis rackets
 B radiators
 C the pistons in a racing car engine
 D the wings and spoilers of a racing car

SECTION 2: GRAMMAR

3 One word is missing from each line. Insert a dash (/) where the word is missing. Write the word in the gap.

- 13 What colour you need? _____
 14 Could repeat your name, please? _____
 15 How many ropes you like to buy? _____
 16 How you spell your name? _____

4 Write the word *if* in ONE space in each line.

- 17 _____ the pump isn't working, _____ the water can't flow up to the tank
 18 _____ the electricity can't flow from the battery to the lamp _____ the switch is open

5 Underline the correct answer.

- 19 How _____ the speed of the helicopter?
 a) he controls b) he does control c) does he control d) he control
- 20 Where _____?
 a) the water gob) does the water go c) goes the water d) do the water go
- 21 If you close the switch, the electrons _____ around the circuit.
 a) are flow b) flows c) flowing d) flow
- 22 When you switch on the power, the pump _____ water through the pipes.
 a) forcing b) is force c) forces d) has force
- 23 If your car _____ start, take it to the garage.
 a) not b) doesn't c) don't d) no
- 24 Those tanks _____ petrol. They hold water.
 a) don't contain b) aren't contain c) not containing d) no contain
- 25 Every Tuesday morning, my friend _____ a Maths lecture.
 a) is having b) have c) has d) is have
- 26 Q: Where is your friend now? A: He _____ a Science lecture.
 a) attend b) is attending c) attends d) does attend
- 27 Q: What's he doing now? _____ the rope? A: No, he isn't. He's stretching it.
 a) He is cutting b) He cuts c) Is he cutting d) Does he cut
- 28 Q: Listen! Alarm bells are ringing. Why _____ ringing? A: They're fire alarms. Fire!
 a) are they b) they are c) they do d) do they
- 29 Spark plugs are _____ of a heat-resistant ceramic.
 a) making b) makes c) make d) made
- 30 Those ropes are strong. What _____ of?
 a) they make b) they are made c) are they made d) they made

SECTION 3: READING

6 Complete the sentences. Write a letter from A-F in each space.

Parts of a car cooling system

- 31 The main parts of a car cooling system are _____
32 The two hoses _____
33 This material is strong and _____
34 The radiator is made of _____
35 This metal doesn't corrode _____
36 The top hose goes from the top of the engine _____

- A if you put it in water.
B aluminium.
C to the top of the radiator.
D flexible.
E a water pump, a radiator, a fan, and two hoses.
F are made of a rubber composite.

- 7 **Put these into the correct order. Write a number from 2 – 7 in the spaces. (1 and 8 are in the correct order)**

How the car cooling system works

START: The pump pushes cold water around the engine. 1

- 37 The cold water then leaves the radiator through the bottom hose. _____
38 The fan blows cold air onto the radiator. This cools the water. _____
39 The hot water then flows through the top hose into the radiator. _____
40 The cold water sinks to the bottom of the radiator. _____
41 The cold water cools the engine, and the engine heats the water. _____
42 The hot water flows out of the engine into the top hose. _____

FINISH: The cold water then passes into the pump again. 8

SECTION 4: WRITING

- 8 **Complete this description of the water supply system in a house. Use the notes in italics.**

- 43 *cold water* → *house through pipes*
Cold water enters _____.
- 44 *cold water* → *up* → *tank*
From here, the cold water _____.
- 45 *location of tank: top of house*
The tank _____.
- 46 *cold water* → *down* → *water heater*
From here, the cold water _____.
- 47 *heat water*
The water heater _____.
- 48 *hot water* → *through pipes* → *shower*
The hot water _____.
- 49 *material of pipes: plastic*
The pipes are _____.
- 50 *tough, flexible, heat-resistant*
This material _____.

SECTION 5: LISTENING

- 9 **Listen and write one word in each gap.**

Part 1

Track 4

A: Right. Now let's look at this diagram of the circuit, up here. Can you see it clearly? On the left, here, you can see a solar panel. OK? The solar panel (51) _____ the sunlight and (52) _____

it into electricity. And here, on the right, you can see three lamps. These three long things. OK? And there, between the panel and the lamps, you can see a controller and a battery.
B: Excuse me, sir. Which one is the controller?
A: Well, the controller's at the top, OK? And of course the battery's at the bottom, here, (53)_____ the controller. And finally, you can see some electrical cables or wires. The cables run (54)_____ the panel, (55)_____ the controller, (56)_____ the battery, and also into the lamps.

Part 2
Track 5

A: Today, we're (57)_____ a tensile strength test for this mountaineering rope. OK. Is everyone ready? Can you see and hear me clearly?
B: Yes.
A: All right, now listen and watch carefully. The rope is made of nylon. Now (58)_____ pulling the rope. I'm stretching it. (59)_____ it breaking?
B: No.
A: That's right. It (60)_____ breaking.

Technical English Level 1 (Elementary)
Progress Test 3 (Units 5 – 6) Answer Key

Section 1: Vocabulary

1 tough / 2 rigid / 3 hard / 4 heat-resistant / 5 flexible / 6 brittle / 7 soft / 8 corrosion-resistant / 9 B / 10 D / 11 C / 12 A

Section 2: Grammar

13 colour do you / 14 Could you repeat / 15 ropes would you / 16 How do you / 17 If the pump / 18 if the switch / 19 c / 20 b / 21 d / 22 c / 23 b / 24 a / 25 c / 26 b / 27 c / 28 a / 29 d / 30 c

Section 3: Reading

31 E / 32 F / 33 D / 34 B / 35 A / 36 C / 37 (7) / 38 (5) / 39 (4) / 40 (6) / 41 (2) / 42 (3)

Section 4: Writing

43 Cold water enters the house through the pipes. / 44 From here, the cold water rises (*or goes up*) to the tank. / 45 The tank is (located) at the top of the house. / 46 From here, the cold water flows down into (*or to*) the water heater. / 47 The water heater then heats the water. / 48 The hot water flows through the pipes to the shower. / 49 The pipes are made of plastic. / 50 This material is tough, flexible and heat-resistant.

Section 5: Listening

51 collects / 52 changes / 53 below / 54 from / 55 through / 56 into / 57 doing / 58 I'm / 59 Is / 60 isn't

Name _____ Class _____

There are 60 questions. Answer all questions.

SECTION 1: VOCABULARY

1 Underline the correct words.

- 1 The deck of the bridge is (*mounted on / suspended from*) strong concrete piers.
- 2 My computer is (*attached to / connected to*) the modem with a long cable.
- 3 Look out! You might hit your head on that low (*gap / beam*).
- 4 Be careful! You could (*trap / injure / get*) an electric shock.
- 5 The ladder moved, but the builder did not fall down. It was a dangerous (*incident / accident*).
- 6 The worker ran through the factory and (*slipped on / tripped over*) some oil on the floor.

2 Write one word in each space. Use each word from the box only once.

pulls / contains / pushes / drives / supports / moves / works / forces

A hovercraft (7) _____ over land and water. This is how it (8) _____. A powerful engine (9) _____ a fan. The fan (10) _____ the air in. It (11) _____ some of the air backwards, and it (12) _____ some of the air downwards. A rubber skirt (13) _____ the air, and the cushion of air (14) _____ the hovercraft.

Section 2: Grammar

3 Write the correct word in each space. You can use the words more than once.

Has / Have / Does / Do / Is / Are

- 15 _____ your new radio work?
- 16 _____ the cables connected to the speakers?
- 17 _____ the lamp connected to the AC adapter?
- 18 _____ you switched on the power source?
- 19 _____ your computer working now?
- 20 _____ you sitting at your computer at the moment?
- 21 _____ these LEDs indicate POWER ON?
- 22 _____ the electrician repaired the fault?

4 Write the correct word in each space.

hasn't / haven't / doesn't / don't / isn't / aren't

- 23 If your lamp _____ work, check the wires.
- 24 If you _____ connected the computer to the router, do it now.
- 25 If your modem _____ switched on, switch it on now.
- 26 If the LEDs _____ go on, check the power source.
- 27 If the lights in the factory _____ on, check the electrical wiring.
- 28 If the fire alarm _____ sounded, you must continue working.

5 Choose the correct answer. Write a, b, c or d in each space.

- 29 Be careful with that machine. _____ no guard on the blade.
a) It's b) There's c) Is d) There
- 30 You must _____ anywhere in the workshop or offices.
a) no smoke b) no smoking c) not smoke d) not smoking
- 31 What time _____ the two aeroplanes crash into each other?
a) did b) was c) have d) were

- 32 When I inspected the factory yesterday, there _____ no fire extinguishers.
 a) are b) was c) is d) were
- 33 Where _____ at 2 pm yesterday afternoon?
 a) are you b) you are c) were you d) you were
- 34 The road is dangerous here. The cars _____ drive off the road into the river.
 a) must b) might c) won't d) don't

SECTION 3: READING

6 Read this description of a device. Write the letter of the correct heading in each space.

A Materials	E How the device works
B Location of main components	F Function of main components
C Function of the device	G Main components of the device
D How to operate the device	H Dimensions

The electric torch

- 35 _____
 The purpose of this device is to produce a small beam of light. You can use it outside at night, or if the electricity in your house is not working.
- 36 _____
 The device has a body, a bulb, a lens, a reflector, a switch and batteries.
- 37 _____
 The body is made of metal. The lens is made of glass or plastic.
- 38 _____
 Electric torches are usually between 20 and 35 cm long, and 5 to 10 cm in width.
- 39 _____
 The job of the batteries is to provide electrical current for the bulb. The purpose of the bulb is to convert electrical current into a source of light. The reflector changes the light from the bulb into a single beam. The job of the lens is to focus the light beam into a single point of light. The switch opens and closes the circuit from the batteries to the bulb.
- 40 _____
 The batteries are inside the body, the lens is attached to the front of the reflector, the bulb is behind the lens and the switch is mounted on the outside of the body.
- 41 _____
 If you want to switch it on, simply slide the switch forwards. If you want to switch it off, slide the switch backwards.
- 42 _____
 When you slide the switch forwards, the circuit is closed. The electric current flows from the batteries into the bulb, and the bulb lights up.

SECTION 4: WRITING

- 7 These people are breaking safety rules. Write the rules.**
- 43 The men on the building site are not wearing their hard hats.
 Rule: You must always _____ on the building site.
- 44 They're smoking in the factory.
 Rule: _____.
- 45 People are using their mobile phones on the aeroplane.
 Rule: _____.
- 46 Someone is using a circular saw. He is not using the guard on the saw.

- Rule: _____.
- 47 The workers are not reading the manual before they open the computers.
Rule: _____.
- 48 Look. Someone is running in the warehouse.
Rule: _____.
- 49 A worker has lit a match near the petrol tanks.
Rule: _____.
- 50 Someone has removed the fire extinguishers from the wall.
Rule: _____.

SECTION 5: LISTENING

Track 7

8 Listen twice. Write TWO words in each gap.

(Note: a contraction like *don't* or *it's* counts as one word)

A: Hello, is that the IT hotline?

B: Yes, it is. I'm the technician. My name's Sofia. How (51) _____ help you?

A: I've (52) _____ problem (53) _____ wireless router. It (54) _____.

B: OK. I'll talk you through it. Are you sitting (55) _____ computer now?

A: Yes, I am.

B: OK. Look at the back. Is the router (56) _____ the power outlet?

A: Yes, it is.

B: OK. And is the router connected to the modem? That's the green cable.

A: Ah ... no, it isn't.

B: So, connect the router (57) _____ modem now. ... Have you done that?

A: Yes, I have. I've connected it.

B: OK. Now, (58) _____ connected your computer to the router? That's the blue cable.

A: Erm ... no, I haven't.

B: OK. (59) _____ now. ... Have you done that?

A: Yes, I have.

B: OK. Now (60) _____ at the lights ...

Technical English Level 1 (Elementary)

Progress Test 5-8 Answer Key

Section 1: Vocabulary

1 mounted on / 2 connected to / 3 beam / 4 get / 5 incident / 6 slipped on / 7 moves / 8 works / 9 drives / 10 pulls / 11 pushes (*or* forces) / 12 forces (*or* pushes) / 13 contains / 14 supports

Section 2: Grammar

15 Does / 16 Are / 17 Is / 18 Have / 19 Is / 20 Are / 21 Do / 22 Has / 23 doesn't / 24 haven't / 25 isn't / 26 don't / 27 aren't / 28 hasn't / 29 b / 30 c / 31 a / 32 d / 33 c / 34 b

Section 3: Reading

35 C / 36 G / 37 A / 38 H / 39 F / 40 B / 41 D / 42 E

Section 4: Writing

43 You must always wear hard hats on the building site. / 44 You must not smoke (*or* No smoking) in the factory. / 45 Do not use your mobile phone on the aeroplane. / 46 Always use the guard on the circular saw. / 47 You must read the manual before you open the computers. / 48 You must not run (*or* Do not run *or* No running) in the warehouse. / 49 Do not light matches near the petrol tanks. / 50 Do not (*or* You must not *or* Never) remove the fire extinguishers from

the wall.

Section 5: Listening

51 can I / 52 got a / 53 with my / 54 doesn't work / 55 at the / 56 connected to / 57 to the / 58 have you / 59 Do it / 60 let's look

Name _____ Class _____

Technical English Level 1 (Elementary)

Progress Test 9-12

There are 60 questions. Answer all questions.

SECTION 1: VOCABULARY

1 Complete these sentences. Use all the words in the box only once.

- 1 In this type of engine, a single _____ moves up and down and makes the shaft rotate.
- 2 When you switch off the current to the _____, it can't pull the relay switch.
- 3 The outlet _____ allows the water to leave the pump, but stops it from flowing back in.
- 4 The _____ of a helicopter has a hub and four large blades.
- 5 If you press the accelerator pedal, the car goes faster. If you _____ it, the car slows down.
- 6 The purpose of the large _____ in the pump is to contain the fluid.
- 7 When the switch is not touching the _____, the circuit is open.
- 8 The motor isn't working. You should _____ it and clean all the components.
- 9 The _____ below this hydro-electric dam produces many gigawatts of electricity.
- 10 The building is 442 metres high. This height doesn't _____ the 10-metre antenna. With the antenna, the height is 452 m.
- 11 We need to _____ a new cooling system in your car.
- 12 That emergency stop button _____ the machines from the power source.

SECTION 2: GRAMMAR

2 Underline the correct words.

- 13 Water falls onto the blades of the turbine. This makes the turbine (*rotated / rotating / rotate*)
- 14 When you close the stop valve, this prevents the water (*to flow / from flowing / isn't flowing*).
- 15 Open the door and allow the smoke (*from escaping / to escape / will escape*) from the room.
- 16 The security man does not let anyone (*entering / to enter / enter*) the factory after dark.

3 One word is missing from each sentence. Insert a dash (/) where the word is missing. Write the word in the space.

- 17 How many wheels the Mars rover have? _____
- 18 Can you see the rover? What the rover doing now? _____
- 19 If the wind speed too strong, the controller switches off the turbine. _____
- 20 This electric circuit consists a battery, a wire, a switch and a lamp. _____

4 Choose the correct words. Write a, b, c or d in each space.

- 21 When _____ your damaged radio to the repair shop?
a) you take b) did you take c) you took d) have you taken

- 22 I'm pressing the brake pedal hard, but the car _____ stopping.
a) won't b) aren't c) isn't d) doesn't
- 23 How fast _____ the blades of the helicopter rotate?
a) do b) does c) are d) have
- 24 I'm sorry. _____ installed the new air conditioner yet.
a) I'm not b) I didn't c) I don't d) I haven't
- 25 If the wind is more than 90 km/h, the controller causes the turbine _____.
a) to switch off b) switching off c) switch off d) switches off
- 26 _____ you buy the new safety equipment yesterday or last week?
a) Do b) Did c) Have d) Are
- 27 When _____ take photographs of the damaged wing?
a) you will b) you are c) will you d) are you
- 28 _____ you repaired the broken pipe yet?
a) Are b) Do c) Did d) Have
- 29 When the fire alarm sounded at 3 pm yesterday, everyone _____ the factory.
a) leaves b) has left c) is leaving d) left
- 30 The mechanic checked the brakes, but he _____ adjust the tyre pressures.
a) doesn't b) didn't c) hasn't d) isn't

SECTION 3: READING

5 Fill in the gaps in the text. Use the words in the box.

allows / operate / wide / rotate / attached / motor / about / is / can / on / of / to

The Mars rover has a body, six wheels, two robot arms, two antennas and a mast. The antennas and the mast are mounted (31)_____ the top of the body, and the robot arms are (32)_____ to the front of the body. The rover is more than 2 metres long, and about 1 metre (33)_____. Its height (34)_____ more than 2 metres. It weighs just under 800 kg. The rover has six wheels, and a special suspension system. The wheels are made (35)_____ titanium and are 25 cm in diameter. The suspension system (36)_____ the six wheels to remain on the ground all the time. There is a strong (37)_____ on each wheel. This allows the rover to (38)_____ 360 degrees. It can travel 90 metres per hour (maximum), but most of the time it moves at a speed of (39)_____ 30 metres per hour. The Rover can (40)_____ in temperatures from -120 degrees C minimum (41)_____ 85 degrees C maximum. The Rover (42)_____ travel up to 200 metres per day.

SECTION 4: WRITING

6 Write eight sentences for a newspaper article about a new wind turbine. In your sentences, answer the questions in the box, using the information in the notes.

<p>What has the president done? (open / new wind turbine)</p> <p>When did the engineers complete it? (two weeks ago)</p> <p>What will the new wind turbine be able to do? (produce 150 MW of electricity)</p> <p>How tall is the tower of the turbine? (28 m)</p> <p>How does it work? (wind → blades / rotate)</p> <p>What happens next? (blades → low-speed shaft / turn / 30 – 60 rpm)</p> <p>What do the two gear wheels do? (connect / low-speed shaft / high-speed shaft)</p> <p>What does the high-speed shaft do? (→ generator / rotate / 1500 rpm)</p>

- 43 The president _____.
- 44 The engineers _____.
- 45 The new wind turbine _____.
- 46 The tower _____.
- 47 This is how it works. First, the wind makes _____.
- 48 Next, the blades _____.
- 49 Two gear wheels then _____.
- 50 Finally the high-speed shaft _____.

SECTION 5: LISTENING

Track 8

7 Listen to the recording twice. Write T (true) or F (false) next to each statement.

- 51 The astronauts make many spacewalks inside the space station. (_____)
- 52 The tank contains water for the space station. (_____)
- 53 In this example, a small piece of rock from space has struck the tank. (_____)
- 54 The piece of rock has dented the tank. (_____)
- 55 The astronauts bring the tank into the space station and photograph it. (_____)
- 56 They don't do any repairs during the first space walk. (_____)
- 57 In the second spacewalk, the astronauts connect the pipes to the tank. (_____)
- 58 The function of the pipes is to bring oxygen into the space station. (_____)
- 59 The astronauts repair the tank outside the space station. (_____)
- 60 In the third spacewalk, the astronauts fit the tank and the pipes together. (_____)

Technical English Level 1 (Elementary)

Progress Test 9-12 Answer Key

Section 1: Vocabulary

1 piston / 2 electro-magnet / 3 valve / 4 rotor / 5 release / 6 chamber / 7 terminal / 8 dismantle / 9 turbine / 10 include / 11 install / 12 disconnects

Section 2: Grammar

13 rotate / 14 from flowing / 15 to escape / 16 enter / 17 wheel does the / 18 What is the / 19 speed is too / 20 consists of a / 21 b / 22 c / 23 a / 24 d / 25 a / 26 b / 27 c / 28 d / 29 d / 30 b /

Section 3: Reading

31 on / 32 attached / 33 wide / 34 is / 35 of / 36 allows / 37 motor / 38 rotate / 39 about / 40 operate / 41 to / 42 can

Section 4: Writing

43 The president has opened a new wind turbine. / 44 The engineers completed it two weeks ago. / 45 The new wind turbine will be able to produce 150 MW of electricity. / 46 The tower is 28 metres tall. / 47 This is how it works. First, the wind makes the blades rotate. / 48 Next, the blades make the low-speed shaft turn at (a speed of) 30 – 60 rpm. / 49 Two gear wheels then connect the low-speed shaft to the high-speed shaft. / Finally the high-speed shaft makes the generator rotate at (a speed of) 1500 rpm.

Section 5: Listening

51 F / 52 F / 53 T / 54 F / 55 F / 56 T / 57 F / 58 T / 59 F / 60 T

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100% выполнению теста.

Критерии оценивания тестовых работ имеют следующие диапазоны:
 менее 50% - низкий уровень;
 50%-70% - средний уровень;
 70% и более - высокий уровень.

Промежуточная аттестация

Name _____ Class _____

Technical English Level 1 (Elementary)

Progress Test 4 (CB1 Units 7 – 8)

There are 60 questions. Answer all questions.

SECTION 1: VOCABULARY

1 Complete these sentences. Use the words in the box.

- 1 I've driven my car into a wall and I've _____ the front bumper.
- 2 A stone has gone through the _____ of the car. The glass is broken.
- 3 I'll need about thirty _____ of cement for this job.
- 4 The _____ of Taipei 101 is more than 500 metres. It's very high.
- 5 The TV screen is not damaged, but the plastic _____ of the TV is cracked.
- 6 The _____ of the river below the centre of the bridge is 50 metres.
- 7 I've dropped my MP3 player and now there's a _____ on the display screen.
- 8 The _____ span of the bridge is 300 metres long, and the outer spans are 220 metres long.
- 9 Climb up the _____ and repair the roof of the building.
- 10 The cables of the bridge are very thick. They are more than 300 mm _____ .
- 11 The user manual is torn and damaged, and many pages are _____ from it.
- 12 The _____ of the bridge is made of strong concrete. It supports the deck.

SECTION 2: GRAMMAR

2 Underline the wrong word. Write the correct word in the gap.

- 13 I need to buy some concretes, please. _____
- 14 How many cement do you need? _____
- 15 I'd like to buy some nail. _____
- 16 How much tubes of glue would you like? _____

3 Reorder the words in each sentence. Write each one correctly.

- 17 How the lake is deep? _____
- 18 What the height of the tower is? _____
- 19 The width of 20 metres has a road. _____
- 20 The river is long more than 50 km. _____

4 Choose the correct answer.

- 21 When _____ build the bridge?
a) they will b) will they c) they'll d) they
- 22 I think _____ be able to fly to Mars in 2030.
a) we b) will we c) will d) we'll
- 23 This car has _____ more than 100,000 kilometres.
a) driven b) drove c) drive d) driving
- 24 Have you _____ your report yet?
a) wrote b) writing c) written d) write
- 25 They _____ the first satellite into space more than fifty years ago.
a) send b) sent c) have sent d) are sending
- 26 They delivered my new scanner this morning. It's _____.
a) breaking b) broke c) break d) broken
- 27 My new computer is damaged. There's a small _____ on the screen.
a) scratches b) scratched c) scratch d) scratching
- 28 Someone has _____ the pages of my new book.
a) tearing b) torn c) tore d) tear

- 29 When _____ your new car?
 a) you buy b) you have bought c) did you buy d) you bought
- 30 I'm sorry. I _____ your bicycle yet.
 a) have repaired b) don't repair c) am not repair d) haven't repaired

SECTION 3: READING

5 Fill in the gaps in the text. Use the words from this box.

leaves / works / long / opened / pass / steel / have / connects / goes / length / raises / flows

The Panama Canal

The Panama Canal is in Central America. The canal (31)_____ the Atlantic Ocean to the Pacific Ocean. It (32)_____ in 1914. It is 80 km long. Every year, more than 14,000 ships (33)_____ through it.

The canal has seventeen lakes and two sets of canal locks. The locks are 33 metres wide and 300 metres (34)_____. The wall of each lock is 15 metres wide at the base and 3 metres thick at the top. The gates of the lock are made of (35)_____. They are 2 metres wide and 19.5 metres in (36)_____. They (37)_____ a height of 20 metres. This is how a canal lock (38)_____. A ship enters the lock, and the gates close behind it. Then water (39)_____ into the lock, and the water level (40)_____ up. This (41)_____ the ship to the correct level. Then the gates open in front of the ship, and the ship (42)_____ the lock.

SECTION 4: WRITING

6 Write eight sentences describing this hydro-electric dam. Use the information in the notes.

Aswan High Dam
 Completion date: July 21, 1970
 Location: southern Egypt
 Function: produce 2.1 gigawatts (GW) of electricity
 Material: concrete and steel
 Length: 3,600 m
 Width: 980 m wide (base), 40 m wide (top)
 Height: 111 m
 Volume of concrete: 43 million m³

- 43 The engineers _____
- 44 The dam is _____
- 45 It _____
- 46 _____
- 47 _____
- 48 _____
- 49 _____
- 50 _____

SECTION 5: LISTENING

Track 6

7 Listen and complete the answers.

- 51 What is the name of the radio channel? *It's called Radio _____.*
- 52 What is Dr Jensen's job? *He's a _____.*
- 53 Is Dr Jensen's company building the tunnel now? *YES / NO*
- 54 What is the other company doing? *They're _____ a small-scale model of the*

tunnel.

- 55 When will Dr Jensen's company start this project? _____ (year)
56 Will the tunnel move around in the water? YES / NO
57 What will the 100,000 cables do? They will _____ the tunnel to the sea floor.
58 Will the train use electricity? YES / NO
59 Will the tube contain a vacuum? YES / NO
60 What are these trains called? They're called _____ trains.

Technical English Level 1 (Elementary)
Progress Test 4 (Units 7 – 8) Answer Key

Section 1: Vocabulary

1 dented / 2 windscreen / 3 bags / 4 height / 5 body / 6 depth / 7 scratch / 8 inner / 9 scaffolding / 10 wide / 11 missing / 12 pier

Section 2: Grammar

13 concrete / 14 How much / 15 nails / 16 many / 17 How deep is the lake? / 18 What is the height of the tower? / 19 The road has a width of 20 metres. / 20 The river is more than 50 km long. / 21 b / 22 d / 23 a / 24 c / 25 b / 26 d / 27 c / 28 b / 29 c / 30 d

Section 3: Reading

31 connects / 32 opened / 33 pass / 34 long / 35 steel / 36 length / 37 have / 38 works / 39 flows / 40 goes / 41 raises / 42 leaves

Section 4: Writing

43 The engineers completed the dam on July 21st, 1970. / 44 The dam is (located) in southern Egypt. / 45 It produces 2.1 gigawatts (GW) of electricity. / 46 The dam (or It) is made of concrete and steel. / 47 It is 3,600 m long. / 48 It is 980 m wide at the base, and 40 m wide at the top. / 49 It is 111 m high. (or It has a height of 111 m.) / 50 The volume of the concrete is 43 million m³ (or cubic metres).

Section 5: Listening

51 Tech / 52 civil engineer / 53 NO / 54 designing / 55 2080 / 56 NO / 57 attach / 58 NO / 59 YES / 60 Mag Lev

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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менее 50% - низкий уровень;
50%-70% - средний уровень;
70% и более - высокий уровень.

Итоговое тестирование

Name _____ Class _____

Technical English Level 1 (Elementary)

Exit Test

Sections 1 – 5 have a total of 60 marks. Try to answer all questions.

Section 6 (Speaking) has a further 20 marks.

SECTION 1: VOCABULARY

1 Choose the correct answer. Write a, b, c or d in each space.

- 1 The shaft rotates at a speed of 350 _____.
a) kW b) rpm c) km/h d) kg
2 Pull the _____ towards you to make the forklift truck move backwards.
a) pedal b) deck c) button d) lever
3 The function of the _____ is to convert the sun's energy into electrical power.

- a) solar panel b) dynamo c) solar power d) adapter
- 4 The plane is flying _____ at an angle of 45° to the ground.
a) horizontally b) vertically up c) diagonally up d) straight down
- 5 The electric current flows around the _____ from the power source to the lamp.
a) circuit b) battery c) ampere d) radiator
- 6 That material is completely _____. It won't bend if you put a heavy weight on it.
a) heat-resistant b) flexible c) corrosion-resistant d) rigid
- 7 The road goes across the lake. It rests on 24 strong concrete _____.
a) decks b) piers c) footprints d) storeys
- 8 Open up the _____ of the car and I'll have a look at the engine.
a) bumper b) boot c) bonnet d) windscreen
- 9 Two powerful jet engines _____ the aeroplane forwards at high speed.
a) propel b) release c) control d) cushion
- 10 Be careful with that bare wire. You might get an electric _____.
a) danger b) shock c) current d) hazard
- 11 The _____ of the engine contains all the moving parts and protects them.
a) piston b) valve c) housing d) shaft
- 12 The TV transmitter is mounted on a high _____ at the top of a hill.
a) mast b) joystick c) suspension d) mass

SECTION 2: LANGUAGE

2 Choose the correct answer. Write a, b, c or d in each space.

- 13 Peter _____ an electrician. He's a builder.
a) doesn't b) isn't c) aren't d) won't
- 14 What _____ you do? Are you a mechanic?
a) are b) is c) do d) it's
- 15 How much sand _____ you like to buy?
a) are b) have c) does d) would
- 16 How many screwdrivers _____ your new multi-tool have?
a) has b) does c) do d) are
- 17 When the water flows out of the tank, where does it _____?
a) go b) goes c) going d) gone
- 18 Look at that robot. Can it _____ and turn round?
a) reverses b) reversing c) reversed d) reverse
- 19 I'm pulling the rope very hard. Why _____ it breaking?
a) isn't b) doesn't c) hasn't d) won't
- 20 That oil _____ come from under the sea. It comes from the desert.
a) isn't b) doesn't c) haven't d) wasn't
- 21 The body of this racing car _____ fibreglass.
a) made of b) will made of c) is made d) is made of
- 22 The tunnel is 3.5 kilometres _____.
a) length b) of length c) long d) is long
- 23 I'm going to the shop. I need to buy _____ cement for the wall.
a) much b) some c) many d) a
- 24 When did you _____ the e-mail to your manager?
a) sent b) sending c) send d) sends
- 25 My new motorbike _____ two days ago, on the road.
a) broke down b) broken down c) break down d) breaking down
- 26 Please pick up those bricks. They have _____ off the wall.
a) fallen b) fell c) fall d) falling
- 27 Are you sitting at your car now? No, _____.

- a) I haven't b) it isn't c) I don't d) I'm not
- 28 The inlet and outlet valves allow the water _____ and leave the chamber.
a) entering b) enter c) to enter d) enters
- 29 After the accident, there were many _____ in the car body.
a) dent b) dents c) dented d) denting
- 30 The climber descended the mountain slowly. He was _____ from a rope.
a) mounted b) attached c) disconnected d) suspended

SECTION 3: READING

3 Complete this text. Use the phrases below. Write a letter from A – P in each space.

Jet pack man

The purpose of a jet pack is (31)_____

The jetpack consists of (32)_____

The engine weighs (33)_____

It is mounted (34)_____

The engine has (35)_____

These nozzles can move and can point (36)_____

The fuel tanks are to the left (37)_____

The tanks contain (38)_____

This is how (39)_____

First the turbine (40)_____

Then the compressed air (41)_____

The air leaves the engine through (42)_____

This is how (43)_____

The pilot has two joysticks, one on the left (44)_____

When he turns the left-hand joystick, he can move the nozzles (45)_____

When he turns the right-hand joystick, he controls (46)_____

- A 331 kg, and has a diameter of 30 cm.
- B the jet pack works.
- C downwards.
- D to allow a single pilot to fly through the air.
- E the speed and acceleration of the engine.
- F pulls in air, and compresses it.
- G flows downwards.
- H the two nozzles.
- I and the other on the right.
- J forwards, backwards or sideways.
- K a turbojet engine, two joysticks, two air nozzles and two fuel tanks.
- L on the pilot's back.
- M the pilot operates the jet pack.
- N two air nozzles.
- O of the engine and to the right of the engine.
- P super-unleaded petrol.

SECTION 4: WRITING

4 Complete these statements to give the same meaning.

- 47 What is the height of the new transmitter?
How _____?
- 48 No eating or drinking in this workshop.
You must _____.
- 49 This ceramic is heat-resistant.

- If you heat this ceramic, it _____.
- 50 The batteries are missing from my new digital camera.
There are no _____.
- 51 The steering wheel causes the car to turn left and right.
The steering wheel makes _____.
- 52 Someone has torn my new overalls.
My new overalls _____.
- 53 This stop valve doesn't allow the oil to flow through the pipe.
This stop valve prevents _____.
- 54 That switch closes the electrical circuit.
The function of that switch _____.

SECTION 5: LISTENING

Track 9

5 Listen twice. Choose the correct answer.

- 55 The height of the road above the river is _____.
a) 336.4 metres b) 246 metres c) 90 metres
- 56 The river valley is _____ 2.5 kilometres in width.
a) exactly b) more than c) less than
- 57 The bridge has _____ lanes of traffic.
a) four b) six c) eight
- 58 _____ of the spans of the bridge are 204 metres long.
a) Two b) Four c) Six
- 59 The bridge has _____ piers.
a) two b) seven c) eight
- 60 The bridge is light because _____.
a) it uses a small amount of material b) the materials are light

SECTION 6: SPEAKING

(61 – 80)

6 Prepare a presentation for your teacher about yourself, and about the industry you work in*. Include the following:

About you

- introduce yourself
- explain your current job*
- explain your plans for your future career
- describe an important event in your past life, and explain why it was important

About the industry you work in*

- describe what your industry* does or produces
- talk about the history of your industry*
- describe some useful equipment in your industry*; explain what it does, and why it is useful
- name an important process in your industry*; explain two steps in that process
- make a prediction about the future of your industry*
- answer a question from your teacher about your industry*

**or the technology you are studying*

Your teacher will mark your talk using the scorecard below. The teacher circles 1 mark if a student includes the area and circles 2 marks for communicating it accurately and effectively. There is a maximum of twenty marks.

The student:

introduced him/herself appropriately	1	2
explained his/her current job	1	2

explained his/her career plans	1	2
described and explained a past event	1	2
described the products of his/her industry/ technology	1	2
talked about his/her industry's/ technology's history	1	2
described useful equipment	1	2
explained two steps in an important process	1	2
made a prediction for the industry/ technology	1	2
answered a question about his/her industry/ technology	1	2

Technical English Level 1 (Elementary)

Exit Test

Answer Key

Section 1: Vocabulary

1 b / 2 d / 3 a / 4 c / 5 a / 6 d / 7 b / 8 c / 9 a / 10 b / 11 c / 12 a

Section 2: Language

13 b / 14 c / 15 d / 16 b / 17 a / 18 d / 19 a / 20 b / 21 d / 22 c / 23 b / 24 c / 25 a / 26 a / 27 d / 28 c / 29 b / 30 d

Section 3: Reading

31 D / 32 K / 33 A / 34 L / 35 N / 36 C / 37 O / 38 P / 39 B / 40 F / 41 G / 42 H / 43 M / 44 I / 45 J / 46 E

Section 4: Writing

47 How high is the new transmitter? / 48 You must not eat or drink in this workshop. / 49 If you heat this ceramic, it won't (*or* doesn't) burn or melt. / 50 There are no batteries in my new digital camera. / 51 The steering wheel makes the car turn left and right. / 52 My new overalls are torn. / 53 This stop valve prevents the oil from flowing through the pipe. / 54 The function of that switch is to close the electrical circuit.

Section 5: Listening

55 b / 56 c / 57 a / 58 a / 59 b / 60 a

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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70% и более - высокий уровень.

«Технический английский язык. Базовый уровень (CEF A 1-A 2)»

Входная диагностика (тестирование) для определения

общего уровня предметных знаний

Name _____ Class _____

Technical English Level 1 (Elementary)

Quick Placement Test

Try to answer all forty five questions. There is one mark per question.

Write one answer from the four possible answers.

For example:

Where c you live?

a) does b) are c) do d) is

1 John _____ a car mechanic.

a) does b) is c) works d) studies

2 What _____ your name?

- a) it's b) are c) do d) is
- 3 How do you _____ your name?
a) spelling b) spells c) spelled d) spell
- 4 How many boxes _____ you want?
a) do b) are c) does d) is
- 5 Does your car _____ four doors?
a) has b) had c) have d) having
- 6 What _____ those switches do?
a) does b) have c) are d) do
- 7 What _____ if you pull that lever?
a) happening b) happens c) happened d) happen
- 8 When _____ you come to my office?
a) are b) have c) can d) does
- 9 My manager _____ to London every week.
a) goes b) going c) go d) gone
- 10 John _____ listening to his teacher.
a) doesn't b) isn't c) hasn't d) won't
- 11 The water _____ flow into this tank.
a) isn't b) wasn't c) hasn't d) doesn't
- 12 That rope is _____ of a strong material.
a) making b) made c) makes d) make
- 13 How _____ that mountain?
a) high b) high is c) the height of d) height is
- 14 How _____ sugar do you like in your tea?
a) is b) many c) the d) much
- 15 I didn't _____ that e-mail yesterday.
a) writing b) write c) wrote d) writes
- 16 My course started _____ the 15th of September last year.
a) on b) in c) at d) by
- 17 Can you repair my watch? It has _____.
a) stop b) stopped c) stops d) stopping
- 18 Have the new tools arrived yet? No, _____.
a) have not b) they not c) they haven't d) haven't they
- 19 That pedal makes the car _____ faster.
a) goes b) go c) to go d) going
- 20 My car door is _____.
a) scratching b) scratches c) scratched d) scratch
- 21 The door handle is attached _____ the door.
a) to b) at c) from d) on
- 22 Please take this sheet of paper. Now write your name _____ the top.
a) to b) in c) at d) from
- 23 Put the wheel on the _____.
a) axe b) axle c) axis d) axes
- 24 The wheels are _____ very quickly.
a) transmitting b) receiving c) rotating d) compressing
- 25 You can _____ the screws with that screwdriver.
a) connect b) grip c) assemble d) tighten
- 26 "Have you done it yet?" "No, not yet. I _____ it."
a) still do b) 'm still doing c) still am doing d) 'll still do
- 27 He took off his glasses. Then he cleaned them. Then he put _____ again.
a) them on b) on c) on them d) them
- 28 "How do you open this box?" "You open it _____ the top with a knife."

- a) to cut b) by cutting c) by cut d) for cutting
- 29 I _____ to Strasbourg tomorrow morning.
a) 'll flying b) 'm fly c) 'll to fly d) 'm flying
- 30 _____, our company is buying some new engines.
a) With reference c) As you know
b) Regarding d) I would be grateful
- 31 Your notebook computer is _____ than mine.
a) expensive b) expensiver c) more expensive d) as expensive
- 32 I'm carrying some heavy boxes. Would you mind _____ the door for me?
a) you open b) open c) to open d) opening
- 33 Today, most tools _____ by machines, not by humans.
a) make b) made c) are making d) are made
- 34 Why are car bodies _____ by robots?
a) painting b) paint c) painted d) paints
- 35 _____ you like me to send you a catalogue?
a) Would b) Could c) Should d) Shall
- 36 An antenna is a device _____ transmits and receives radio signals.
a) for b) that c) to d) who
- 37 A solar panel is a device for _____ sunlight into electricity.
a) converts b) convert c) converting d) converter
- 38 Safety boots must _____ at all times on this building site.
a) to wear b) be worn c) you wear d) be wearing
- 39 A _____ is a special pump that compresses a liquid or gas.
a) compression b) compressible c) compressed d) compressor
- 40 A new computer system should _____ in our company.
a) be installed b) to install c) be install d) have installed
- 41 Is your radio not working? Try _____ the batteries.
a) change b) you change c) changing d) for changing
- 42 Many safety rules _____ last year.
a) broke b) were broken c) were breaking d) broken
- 43 There are many types of metal. _____, there is iron.
a) In addition b) In other words c) That is d) For example
- 44 This instrument measures how deep _____.
a) the lake b) of lake c) the lake is d) is the lake
- 45 The exhaust is the burnt gas _____ from the engine.
a) emitted b) which emitted c) is emitted d) emits

Technical English Level 1 (Elementary)

Quick Placement Test Answer Key

Place the student according to the following scores:

Elementary level = 1 – 25

Pre-intermediate level = 26 – 45

1 b / 2 d / 3 d / 4 a / 5 c / 6 d / 7 b / 8 c / 9 a / 10 b /

11 d / 12 b / 13 a / 14 d / 15 b / 16 a / 17 b / 18 c / 19 b / 20 c /

21 a / 22 c / 23 b / 24 c / 25 d / 26 b / 27 a / 28 b / 29 d / 30 c /

31 c / 32 d / 33 d / 34 c / 35 a / 36 b / 37 c / 38 b / 39 d / 40 a /

41 c / 42 b / 43 d / 44 c / 45 a

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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Текущий контроль

Name _____ Class _____

Technical English Test Masters Level 1 (Elementary)

Unit Tests

Unit 1-2

1 Are these parts of a cable-stay bridge (like the Millau bridge) vertical, horizontal or diagonal? Put V, H or D.

- 1 cable _____
- 2 deck _____
- 3 pier _____
- 4 pylon _____
- 5 span _____

2 Match words with the same meanings.

- 6 inner
 - 7 outer
 - 8 floor
 - 9 elevator
 - 10 footprint
- A storey
 - B internal
 - C area of the base
 - D lift
 - E external

3 Write nouns from these adjectives.

- 11 high _____
- 12 long _____
- 13 wide _____
- 14 deep _____

4 Write questions to get these answers. Use the words in brackets,

- 15 It's 50 metres wide. (river) _____?
- 16 They're 100 metres long. (cables) _____?

5 Rearrange the order of these words to make sentences. Add capital letters.

- 17 height the metres bridge is of 245 the _____
- 18 lake the of a metres depth has 155 _____

6 Write these out in words.

- 19 30 m² _____
- 20 13,000 m³ _____
- 21 118 kg _____

- 7 Underline the correct words.**
 22 I would like some (*nail/ nails*) please.
 23 I need to buy some (*cement/ cements*), please.

8 Complete these questions and statements.

much / many

- 24 How _____ paint would you like?
 25 How _____ nuts and bolts do you need?
 26 How _____ bags of sand do you have?
 27 How _____ reinforced concrete do we have?

9 Complete the dialogue.

will / won't / they'll

- A: Will they build a bridge between Africa and Europe?
 B: No, they (28) _____. It's too difficult. But (29) _____ build a tunnel.
 A: When (30) _____ they build it?
 B: In 2050, I think.

Technical English Test Masters Level 1 (Elementary)

Unit Test 1-2 Answer Key

-
- 1 1 D / 2 H / 3 V / 4 V / 5 H
 2 6 B / 7 E / 8 A / 9 D / 10 C
 3 11 height / 12 length / 13 width / 14 depth
 4 15 How wide is the river? / 16 How long are the cables?
 5 17 The height of the bridge is 245 metres. / 18 The lake has a depth of 155 metres.
 6 19 thirty square metres / 20 thirteen thousand cubic metres / 21 one (*or a*) hundred and eighteen kilograms
 7 22 nails / 23 cement
 8 24 much / 25 many / 26 many / 27 much
 9 28 won't / 29 they'll / 30 will

Name _____ Class _____

Technical English Test Masters Level 1 (Elementary)

Unit Tests

Unit 3-4

1 Write one word in each gap. Use the correct form of the verb in brackets.

- 1 My car has _____ (*break*) down.
 2 Have you _____ (*check*) the brakes of the car?
 3 I haven't _____ (*write*) the e-mail.
 4 They've _____ (*drive*) the car to the garage.
 5 Has the mechanic _____ (*put*) new tyres on the car?
 6 Our company has _____ (*buy*) a new computer system.

2 Underline the correct word in each sentence.

- 7 The screen of my computer is (*scratch/ scratched*).
 8 The headphones are (*missed/ missing*) from the box.
 9 There (*is/ are*) no batteries in the box.
 10 There are (*dents/ dented*) in the body of the car.
 11 Someone has (*tear/ torn*) my overalls.
 12 Those cables are all (*burn/ burnt*).

3 Underline the correct word(s) in each sentence.

- 13 My friend (*went/ has gone*) to London last week.
14 Astronauts (*landed/ have landed*) on the Moon many years ago.
15 When (*did you crash/ have you crashed*) your car?
16 (*Did you order/ Have you ordered*) the new equipment yesterday?

4 Complete these sentences. Use the correct form of the verb in brackets.

- 17 I _____ (*take*) my damaged radio to the repair shop two days ago.
18 When did the accident _____ (*happen*)?
19 The astronaut _____ (*send*) his radio message to Earth an hour ago.
20 What time did you _____ (*lose*) your money yesterday?

5 Complete the sentences.

boot / crane / scaffolding / bonnet / sledgehammer / headphones / power cable / display screen

- 21 The _____ connects the radio to the mains electricity.
22 The builder has climbed to the top of the _____.
23 Open the _____ of your car. We can put our suitcases in there.
24 The _____ has lifted the beam to the top of the building.
25 You can see the time on the _____ of your radio.
26 Put on the _____ and listen to some music.
27 Open the _____ of your car. I'll look at the engine.
28 Break the rocks. Use a _____.

6 Complete these statements. Write *in* or *on* in each space.

- 29 They launched the space ship _____ the 20th of June last year.
30 The space ship will return to Earth _____ February next year.

Technical English Test Masters Level 1 (Elementary)

Unit Test 3-4 Answer Key

-
- 1 1 broken / 2 checked / 3 written / 4 driven / 5 put / 6 bought
2 7 scratched / 8 missing / 9 are / 10 dents / 11 torn / 12 burnt
3 13 went / 14 landed / 15 did you crash / 16 Did you order
4 17 took / 18 happen / 19 sent / 20 lose
5 21 power cable / 22 scaffolding / 23 boot / 24 crane / 25 display screen / 26 headphones /
27 bonnet / 28 sledgehammer
6 29 on / 30 in

Name _____ Class _____

Technical English Test Masters Level 1 (Elementary)

Unit Tests

Unit 5-6

1 Complete the questions. Choose from these words.

do / does / work / works

- 1 What _____ this pedal do?
2 How do computers _____?
3 How does a hovercraft _____?
4 What _____ these buttons do?

2 Complete the questions.

Have / Are / Is / Has / Does / Do

- 5 _____ your car battery flat?
 6 _____ you connected the speakers to the computer?
 7 _____ the cables connected to the power source?
 8 _____ your printer just broken down?
 9 _____ your new computer work?
 10 _____ the levers control the brakes?

3 Match questions and answers. Write A-F in the spaces.

- 11 Have you switched on the power? _____
 12 Are you sitting in front of the computer now? _____
 13 Do the LED lights go on when you start the computer? _____
 14 What does this button do? _____
 15 What do these switches do? _____
 16 Is the disk inside the disk drive? _____

- A They switch off the power.
 B Yes, I have.
 C No, it isn't.
 D It switches on the power.
 E No, they don't.
 F Yes, I am.

4 Put two phrases together in each sentence to make sense. Write the letters of the four phrases in the gaps.

- 17 If _____, _____.
 18 If _____, _____.
 A change the batteries
 B press the brake pedal
 C your torch doesn't work
 D you want to stop the car

5 Write two words in each gap. Use each word once only.

This / I'm / I / have / can / is / you / the

Hello, (19)_____ reached the car repair hotline. (20)_____ Dave speaking.
 (21)_____ mechanic. How (22)_____ help you?

6 Complete these sentences. Use one of the words twice.

on / from / to

- 23 The fan is mounted _____ a strong base.
 24 The antenna is attached _____ the roof.
 25 The telephone is connected _____ the computer.
 26 The lift is suspended _____ the top of the building.

7 Complete this.

supports / propels / controls / steers

- 27 That wheel _____ the boat left and right
 28 A strong engine _____ the car forwards.
 29 A cushion of air _____ the hovercraft
 30 This pedal _____ the speed of the forklift truck.

Technical English Test Masters Level 1 (Elementary) Unit Test 5-6 Answer Key

- 1** 1 does / 2 work / 3 work / 4 do
2 5 Is / 6 Have / 7 Are / 8 Has / 9 Does / 10 Do
3 11 B / 12 F / 13 E / 14 D / 15 A / 16 C
4 17 D, B / 18 C, A (or 17 C, A / 18 D, B)
5 19 you have / 20 This is / 21 I'm the / 22 can I

- 6 23 on / 24 to / 25 to / 26 from
7 27 steers / 28 propels / 29 supports / 30 controls

Name _____ Class _____

Technical English Test Masters Level 1 (Elementary)

Unit Tests

Unit 7-8

1 Complete these warnings.

no / must / never / might / mustn't / always

- 1 Fire hazard: you _____ smoke here.
2 Safety warning: _____ mobile phones.
3 Danger: _____ use a guard on this machine.
4 Warning: _____ run in the workshop.
5 Hot surface: you _____ burn yourself.
6 Danger: you _____ wear a hard hat.

2 Use the correct form of the verb in brackets.

7 No _____ (smoke)

8 No _____ (run)

3 Complete these warnings.

some / a / no

- 9 Look out! There's _____ gap between the train and the platform.
10 Be careful! There are _____ bricks on the floor.
11 Look out! There's _____ oil on the road.
12 Be careful! There are _____ guards on the machines.

4 Complete this safety report. Change verbs to the past.

I (13)_____ (inspect) the building site yesterday. I (14)_____ (see) many hazards. The fire exit (15)_____ (is) locked. There (16)_____ (are) no fire extinguishers.

5 Match words in these instructions and warnings.

- 17 You might _____
18 You could get a bad _____
19 Your foot might fall into _____
20 You could trap your _____
21 You might slip _____
22 You could hit your head on _____
A electric shock.
B the gap.
C hand in the gears.
D injure yourself.
E on the oil.
F the low beam.

6 Delete ONE wrong word in each list.

- 23 Safe things: *cones, guard, chemicals, hard hat, boots*
24 Dangerous things: *coiled cable, lighted match, fire exit, heavy weight*

7 Complete the questions.

were / was / did

- 25 What time _____ the fire start?

- 26 How many people _____ in the workshop?
 27 When _____ the accident happen?
 28 How high _____ the worker on the scaffolding?
 29 Where _____ the incident take place?
 30 What _____ the altitude of the plane?

Technical English Test Masters Level 1 (Elementary)

Unit Test 7-8 Answer Key

- 1 1 mustn't / 2 no / 3 always / 4 never / 5 might / 6 must
 2 7 smoking / 8 running
 3 9 a / 10 some / 11 some / 12 no
 4 13 inspected / 14 saw / 15 was / 16 were
 5 17 D / 18 A / 19 B / 20 C / 21 E / 22 F
 6 23 chemicals / 24 fire exit
 7 25 did / 26 were / 27 did / 28 was / 29 did / 30 was

Name _____ Class _____

Technical English Test Masters Level 1 (Elementary)

Unit Tests

Unit 9-10

1 Complete these sentences.

prevents / allows / makes / forces

- 1 The wind _____ the blades turn.
 2 The lock _____ the door from opening.
 3 The pump _____ the water to flow upwards.
 4 The pipe _____ the water to flow downwards.

2 Underline the correct word or phrase in brackets.

- 5 A motor makes the shaft (*rotate/ to rotate/ from rotating*).
 6 The brake prevents the wheels (*move/ to move/ from moving*).
 7 A valve opens and allows the fluid (*escape/ to escape/ from escaping*).
 8 A spring causes the piston (*rise/ to rise/ from rising*).
 9 An overflow pipe lets water (*flow / to flow / from flowing*) out of the tank.
 10 A large rock stops the car (*roll/ to roll/ from rolling*) back down the hill.

3 Write a word in each gap.

spring / valve / chamber / piston / nozzle / trigger

- 11 The _____ closes and stops the flow.
 12 The _____ contains the fuel.
 13 The _____ compresses and stretches.
 14 The _____ moves forwards and backwards.
 15 The fluid comes out through the _____.
 16 Squeeze the _____ with your finger.

4 Match beginnings and endings.

- 17 an alarm
 18 an electro-
 19 a relay
 20 an open
 A circuit
 B switch
 C bell

D magnet

5 Complete the opposites of these words. Write 2 or 3 letters in each space.

- 21 maximum ≠ _____imum
22 increase ≠ _____crease
23 inlet ≠ _____let
24 expand ≠ _____tract
25 high-speed shaft ≠ _____-speed shaft

6 Match beginnings with endings in this description of a wind turbine.

- 26 The housing
27 The shaft
28 The tower
29 The rotor
30 The brake
- A turns in the wind.
B contains the machinery.
C stops the wind turbine.
D makes the gear wheel rotate.
E supports the housing and the rotor.

Technical English Test Masters Level 1 (Elementary)

Unit Test 19-10 Answer Key

- 1 1 makes / 2 prevents / 3 forces / 4 allows
2 5 rotate / 6 from moving / 7 to escape / 8 to rise / 9 flow / 10 from rolling
3 11 valve / 12 chamber / 13 spring / 14 piston / 15 nozzle / 16 trigger
4 17 C / 18 D / 19 B / 20 A
5 21 min / 22 de / 23 out / 24 con / 25 low
6 26 B / 27 D / 28 E / 29 A / 30 C

Name _____ Class _____

Technical English Test Masters Level 1 (Elementary)

Unit Tests

Unit 11-12

1 Complete the questions.

How high / How many / How fast / How much / Where are / What is / What does / What are

- 1 _____ this Mars rover called?
2 _____ wheels does it have? (Answer: six)
3 _____ the rover wheels made of? (Answer: titanium)
4 _____ the robot arm do? (Answer: it lifts pieces of rock)
5 _____ is the mast? (Answer: about 2.1 metres)
6 _____ does the rover weigh?
7 _____ does it move? (Answer: about 30 metres per hour)
8 _____ the robot arms? (Answer: at the front)

2 Complete the second sentence in each pair. Use the opposite of the word in italics.

- 9 *Dismantle* the pump. Then _____ it again.
10 *Disconnect* the wires. Then _____ the wires again.
11 Does the weight of the boat *include* the fuel? No, it _____ the fuel.
12 Make the rover move *forwards*. Then make it go _____.

3 Complete the instructions.

install / inspect / repair / lubricate

- 13 Please _____ the gear wheel. Use this oil.
14 Please _____ the damage. Use this camera.
15 Please take out the old pipes. Then _____ new pipes in the same place.
16 Please _____ the damage.

4 Write these values out in words.

- 17 > 15 m _____
18 < 30 km _____
19 ~ 14 kg _____

5 Complete the sentences.

hasn't / isn't / didn't / won't / haven't / aren't

- 20 I'm pushing the acceleration pedal, but the car _____ moving.
21 The astronauts _____ repaired the damaged pipe yet.
22 The wind is blowing, but the blades _____ rotating.
23 The mechanic _____ repaired my car yet.
24 The engineers _____ be able to finish the building next year.
25 The astronauts _____ send a progress report yesterday.

6 Complete the dialogue. Use the correct form of the verb in brackets.

- A: (26)_____ (have) you (27)_____ (install) the new heater yet?
B: Yes, I have.
A: When (28)_____ (do) you (29)_____ (install) it?
B: I (30)_____ (install) it two hours ago.

Technical English Test Masters Level 1 (Elementary)

Unit Test 11-12 Answer Key

-
- 1** 1 What is / 2 How many / 3 What are / 4 What does / 5 How high / 6 How much / 7 How fast / 8 Where are
2 9 assemble / 10 connect / 11 excludes / 12 backwards
3 13 lubricate / 14 inspect / 15 intall / 16 repair
4 17 more than fifteen metres / 18 less than thirty kilometres / 19 about (*or* approximately) fourteen kilograms
5 20 isn't / 21 haven't / 22 aren't / 23 hasn't / 24 won't / 25 didn't
6 26 Have / 27 installed / 28 did / 29 install / 30 installed

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Промежуточная аттестация

Name _____ Class _____

Technical English Level 1 (Elementary)

Progress Test

There are 60 questions.

SECTION 1: VOCABULARY

1 Complete the sentences with the words from the box below.

soft / brittle / tough / hard / flexible / corrosion-resistant / rigid / heat-resistant

- 1 If you drop a steel beam, it doesn't break. It's a very _____ material.
- 2 You can't bend a concrete beam. It's a very _____ material.
- 3 You can only cut glass with a diamond, but not with a knife. It's a _____ material.
- 4 This ceramic doesn't burn or melt at high temperatures. It's _____.
- 5 You can bend this plastic a little, but it doesn't break. It's _____.
- 6 You can break glass easily if you drop it. It's a very _____ material.
- 7 You can cut or scratch this plastic easily. It's very _____.
- 8 Aluminium doesn't corrode in water or chemicals. It's a _____ metal

2 Match the items with their descriptions. Write a letter from A-D in each space.

- 9 They're made of aluminium. They cool car engines. _____
 - 10 They're made of fibreglass and polystyrene. They are on racing cars. _____
 - 11 They're made of a heat-resistant ceramic. _____
 - 12 They have a shaft and head made of graphite . _____
- A tennis rackets
B radiators
C the pistons in a racing car engine
D the wings and spoilers of a racing car

SECTION 2: GRAMMAR

3 One word is missing from each line. Insert a dash (/) where the word is missing. Write the word in the gap.

- 13 What colour you need? _____
- 14 Could repeat your name, please? _____
- 15 How many ropes you like to buy? _____
- 16 How you spell your name? _____

4 Write the word *if* in ONE space in each line.

- 17 _____ the pump isn't working, _____ the water can't flow up to the tank
- 18 _____ the electricity can't flow from the battery to the lamp _____ the switch is open

5 Underline the correct answer.

- 19 How _____ the speed of the helicopter?
a) he controls b) he does control c) does he control d) he control
- 20 Where _____?
a) the water gob) does the water go c) goes the water d) do the water go
- 21 If you close the switch, the electrons _____ around the circuit.
a) are flow b) flows c) flowing d) flow
- 22 When you switch on the power, the pump _____ water through the pipes.
a) forcing b) is force c) forces d) has force
- 23 If your car _____ start, take it to the garage.

- a) not b) doesn't c) don't d) no
- 24 Those tanks _____ petrol. They hold water.
a) don't contain b) aren't contain c) not containing d) no contain
- 25 Every Tuesday morning, my friend _____ a Maths lecture.
a) is having b) have c) has d) is have
- 26 Q: Where is your friend now? A: He _____ a Science lecture.
a) attend b) is attending c) attends d) does attend
- 27 Q: What's he doing now? _____ the rope? A: No, he isn't. He's stretching it.
a) He is cutting b) He cuts c) Is he cutting d) Does he cut
- 28 Q: Listen! Alarm bells are ringing. Why _____ ringing? A: They're fire alarms. Fire!
a) are they b) they are c) they do d) do they
- 29 Spark plugs are _____ of a heat-resistant ceramic.
a) making b) makes c) make d) made
- 30 Those ropes are strong. What _____ of?
a) they make b) they are made c) are they made d) they made

SECTION 3: READING

6 Complete the sentences. Write a letter from A-F in each space.

- Parts of a car cooling system**
- 31 The main parts of a car cooling system are _____
- 32 The two hoses _____
- 33 This material is strong and _____
- 34 The radiator is made of _____
- 35 This metal doesn't corrode _____
- 36 The top hose goes from the top of the engine _____

- A if you put it in water.
B aluminium.
C to the top of the radiator.
D flexible.
E a water pump, a radiator, a fan, and two hoses.
F are made of a rubber composite.

7 Put these into the correct order. Write a number from 2 – 7 in the spaces. (1 and 8 are in the correct order)

- How the car cooling system works**
- START: The pump pushes cold water around the engine. 1
- 37 The cold water then leaves the radiator through the bottom hose. _____
- 38 The fan blows cold air onto the radiator. This cools the water. _____
- 39 The hot water then flows through the top hose into the radiator. _____
- 40 The cold water sinks to the bottom of the radiator. _____
- 41 The cold water cools the engine, and the engine heats the water. _____
- 42 The hot water flows out of the engine into the top hose. _____
- FINISH: The cold water then passes into the pump again. 8

SECTION 4: WRITING

8 Complete this description of the water supply system in a house. Use the notes in italics.

- 43 *cold water* → *house through pipes*
Cold water enters _____.
- 44 *cold water* → *up* → *tank*
From here, the cold water _____.

- 45 *location of tank: top of house*
The tank _____.
- 46 *cold water → down → water heater*
From here, the cold water _____.
- 47 *heat water*
The water heater _____.
- 48 *hot water → through pipes → shower*
The hot water _____.
- 49 *material of pipes: plastic*
The pipes are _____.
- 50 *tough, flexible, heat-resistant*
This material _____.

SECTION 5: LISTENING

9 Listen and write one word in each gap.

Part 1

Track 4

A: Right. Now let's look at this diagram of the circuit, up here. Can you see it clearly? On the left, here, you can see a solar panel. OK? The solar panel (51)_____ the sunlight and (52)_____ it into electricity. And here, on the right, you can see three lamps. These three long things. OK? And there, between the panel and the lamps, you can see a controller and a battery.

B: Excuse me, sir. Which one is the controller?

A: Well, the controller's at the top, OK? And of course the battery's at the bottom, here, (53)_____ the controller. And finally, you can see some electrical cables or wires. The cables run (54)_____ the panel, (55)_____ the controller, (56)_____ the battery, and also into the lamps.

Part 2

Track 5

A: Today, we're (57)_____ a tensile strength test for this mountaineering rope. OK. Is everyone ready? Can you see and hear me clearly?

B: Yes.

A: All right, now listen and watch carefully. The rope is made of nylon. Now (58)_____ pulling the rope. I'm stretching it. (59)_____ it breaking?

B: No.

A: That's right. It (60)_____ breaking.

Technical English Level 1 (Elementary)

Progress Test Answer Key

Section 1: Vocabulary

1 tough / 2 rigid / 3 hard / 4 heat-resistant / 5 flexible / 6 brittle / 7 soft / 8 corrosion-resistant / 9 B / 10 D / 11 C / 12 A

Section 2: Grammar

13 colour do you / 14 Could you repeat / 15 ropes would you / 16 How do you / 17 If the pump / 18 if the switch / 19 c / 20 b / 21 d / 22 c / 23 b / 24 a / 25 c / 26 b / 27 c / 28 a / 29 d / 30 c

Section 3: Reading

31 E / 32 F / 33 D / 34 B / 35 A / 36 C / 37 (7) / 38 (5) / 39 (4) / 40 (6) / 41 (2) / 42 (3)

Section 4: Writing

43 Cold water enters the house through the pipes. / 44 From here, the cold water rises (*or goes up*) to the tank. / 45 The tank is (located) at the top of the house. / 46 From here, the cold water flows down into (*or to*) the water heater. / 47 The water heater then heats the water. / 48 The hot

water flows through the pipes to the shower. / 49 The pipes are made of plastic. / 50 This material is tough, flexible and heat-resistant.

Section 5: Listening

51 collects / 52 changes / 53 below / 54 from / 55 through / 56 into / 57 doing / 58 I'm / 59 Is / 60 isn't

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50%-70% - средний уровень;

70% и более - высокий уровень.

Итоговое тестирование

Name _____ Class _____

Technical English Level 1 (Elementary)

Exit Test

There are 60 questions. Answer all questions.

SECTION 1: VOCABULARY

1 Complete these sentences. Use all the words in the box only once.

disconnects / valve / chamber / include / turbine / install / piston / electro-magnet /
dismantle / terminal / release / rotor

- 1 In this type of engine, a single _____ moves up and down and makes the shaft rotate.
- 2 When you switch off the current to the _____, it can't pull the relay switch.
- 3 The outlet _____ allows the water to leave the pump, but stops it from flowing back in.
- 4 The _____ of a helicopter has a hub and four large blades.
- 5 If you press the accelerator pedal, the car goes faster. If you _____ it, the car slows down.
- 6 The purpose of the large _____ in the pump is to contain the fluid.
- 7 When the switch is not touching the _____, the circuit is open.
- 8 The motor isn't working. You should _____ it and clean all the components.
- 9 The _____ below this hydro-electric dam produces many gigawatts of electricity.
- 10 The building is 442 metres high. This height doesn't _____ the 10-metre antenna. With the antenna, the height is 452 m.
- 11 We need to _____ a new cooling system in your car.
- 12 That emergency stop button _____ the machines from the power source.

SECTION 2: GRAMMAR

2 Underline the correct words.

- 13 Water falls onto the blades of the turbine. This makes the turbine (*rotated* / *rotating* / *rotate*)
- 14 When you close the stop valve, this prevents the water (*to flow* / *from flowing* / *isn't flowing*).
- 15 Open the door and allow the smoke (*from escaping* / *to escape* / *will escape*) from the room.
- 16 The security man does not let anyone (*entering* / *to enter* / *enter*) the factory after

dark.

3 One word is missing from each sentence. Insert a dash (/) where the word is missing. Write the word in the space.

- 17 How many wheels the Mars rover have? _____
18 Can you see the rover? What the rover doing now? _____
19 If the wind speed too strong, the controller switches off the turbine. _____
20 This electric circuit consists a battery, a wire, a switch and a lamp. _____

4 Choose the correct words. Write a, b, c or d in each space.

- 21 When _____ your damaged radio to the repair shop?
a) you take b) did you take c) you took d) have you taken
- 22 I'm pressing the brake pedal hard, but the car _____ stopping.
a) won't b) aren't c) isn't d) doesn't
- 23 How fast _____ the blades of the helicopter rotate?
a) do b) does c) are d) have
- 24 I'm sorry. _____ installed the new air conditioner yet.
a) I'm not b) I didn't c) I don't d) I haven't
- 25 If the wind is more than 90 km/h, the controller causes the turbine _____.
a) to switch off b) switching off c) switch off d) switches off
- 26 _____ you buy the new safety equipment yesterday or last week?
a) Do b) Did c) Have d) Are
- 27 When _____ take photographs of the damaged wing?
a) you will b) you are c) will you d) are you
- 28 _____ you repaired the broken pipe yet?
a) Are b) Do c) Did d) Have
- 29 When the fire alarm sounded at 3 pm yesterday, everyone _____ the factory.
a) leaves b) has left c) is leaving d) left
- 30 The mechanic checked the brakes, but he _____ adjust the tyre pressures.
a) doesn't b) didn't c) hasn't d) isn't

SECTION 3: READING

5 Fill in the gaps in the text. Use the words in the box.

allows / operate / wide / rotate / attached / motor / about / is / can / on / of / to

The Mars rover has a body, six wheels, two robot arms, two antennas and a mast. The antennas and the mast are mounted (31)_____ the top of the body, and the robot arms are (32)_____ to the front of the body. The rover is more than 2 metres long, and about 1 metre (33)_____. Its height (34)_____ more than 2 metres. It weighs just under 800 kg. The rover has six wheels, and a special suspension system. The wheels are made (35)_____ titanium and are 25 cm in diameter. The suspension system (36)_____ the six wheels to remain on the ground all the time. There is a strong (37)_____ on each wheel. This allows the rover to (38)_____ 360 degrees. It can travel 90 metres per hour (maximum), but most of the time it moves at a speed of (39)_____ 30 metres per hour. The Rover can (40)_____ in temperatures from -120 degrees C minimum (41)_____ 85 degrees C maximum. The Rover (42)_____ travel up to 200 metres per day.

SECTION 4: WRITING

6 Write eight sentences for a newspaper article about a new wind turbine. In your sentences, answer the questions in the box, using the information in the notes.

What has the president done? (open / new wind turbine)
When did the engineers complete it? (two weeks ago)
What will the new wind turbine be able to do? (produce 150 MW of electricity)
How tall is the tower of the turbine? (28 m)
How does it work? (wind → blades / rotate)
What happens next? (blades → low-speed shaft / turn / 30 – 60 rpm)
What do the two gear wheels do? (connect / low-speed shaft / high-speed shaft)
What does the high-speed shaft do? (→ generator / rotate / 1500 rpm)

- 43 The president _____.
44 The engineers _____.
45 The new wind turbine _____.
46 The tower _____.
47 This is how it works. First, the wind makes _____.
48 Next, the blades _____.
49 Two gear wheels then _____.
50 Finally the high-speed shaft _____.
51 The astronauts make many spacewalks inside the space station. (____)
52 The tank contains water for the space station. (____)
53 In this example, a small piece of rock from space has struck the tank. (____)
54 The piece of rock has dented the tank. (____)
55 The astronauts bring the tank into the space station and photograph it. (____)
56 They don't do any repairs during the first space walk. (____)
57 In the second spacewalk, the astronauts connect the pipes to the tank. (____)
58 The function of the pipes is to bring oxygen into the space station. (____)
59 The astronauts repair the tank outside the space station. (____)
60 In the third spacewalk, the astronauts fit the tank and the pipes together. (____)

Exit Test Answer Key

Section 1: Vocabulary

1 piston / 2 electro-magnet / 3 valve / 4 rotor / 5 release / 6 chamber / 7 terminal / 8 dismantle / 9 turbine / 10 include / 11 install / 12 disconnects

Section 2: Grammar

13 rotate / 14 from flowing / 15 to escape / 16 enter / 17 wheel does the / 18 What is the / 19 speed is too / 20 consists of a / 21 b / 22 c / 23 a / 24 d / 25 a / 26 b / 27 c / 28 d / 29 d / 30 b /

Section 3: Reading

31 on / 32 attached / 33 wide / 34 is / 35 of / 36 allows / 37 motor / 38 rotate / 39 about / 40 operate / 41 to / 42 can

Section 4: Writing

43 The president has opened a new wind turbine. / 44 The engineers completed it two weeks ago. / 45 The new wind turbine will be able to produce 150 MW of electricity. / 46 The tower is 28 metres tall. / 47 This is how it works. First, the wind makes the blades rotate. / 48 Next, the blades make the low-speed shaft turn at (a speed of) 30 – 60 rpm. / 49 Two gear wheels then connect the low-speed shaft to the high-speed shaft. / Finally the high-speed shaft makes the generator rotate at (a speed of) 1500 rpm.

Section 5: Listening

51 F / 52 F / 53 T / 54 F / 55 F / 56 T / 57 F / 58 T / 59 F / 60 T

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

Критерии оценивания тестовых работ имеют следующие диапазоны:
менее 50% - низкий уровень;
50%-70% - средний уровень;
70% и более - высокий уровень.

«Технический английский язык. Средний уровень (CEF -A 2)»

**Входная диагностика (тестирование) для определения
общего уровня предметных знаний**

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Quick Placement Test

Try to answer all 45 questions. There is one mark per question. Write one answer from the four possible answers.

- 1 What _____ your job?
a) are b) do c) it's d) is
- 2 Peter _____ an electrician.
a) works b) is c) does d) working
- 3 How many nails _____ you need?
a) do b) is c) does d) are
- 4 How do you _____ your surname?
a) wrote b) writes c) write d) written
- 5 What _____ that lever do?
a) are b) does c) is d) do
- 6 Does Tom's bicycle _____ a dynamo?
a) having b) had c) have d) has
- 7 Who _____ answer my question?
a) are b) has c) want d) can
- 8 What _____ when you push that pedal down?
a) happens b) happening
c) happened d) happen
- 9 The students _____ working in the laboratory today.
a) can't b) don't c) aren't d) won't
- 10 The engineer _____ to Dubai for a meeting every month.
a) flies b) is fly c) fly d) flown
- 11 Spark plugs are made _____ a heat-resistant material.
a) to b) of c) for d) by
- 12 The radio _____ work because the batteries are flat.
a) isn't b) don't c) hasn't d) doesn't
- 13 How _____ the sea under the bridge?
a) deep b) the depth of c) deep is d) is deep
- 14 My car _____ down last week in the desert.
a) broke b) break c) broken d) has broken
- 15 How _____ sand is in that bag?
a) any b) much c) some d) many
- 16 The TV company launched the satellite _____ September last year.
a) on b) from c) at d) in
- 17 You _____ smoke in the workshop.
a) mustn't b) haven't c) aren't d) weren't
- 18 The electrician has _____ the fuses in the factory.
a) repair b) repairs c) repaired d) done repair

- 19 Have they installed the new computer yet? No, _____.
 a) have not b) they haven't
 c) they not d) haven't they
- 20 When _____ the accident happen?
 a) do b) has c) did d) was
- 21 The small gear makes the large gear _____ quickly.
 a) rotate b) rotates c) to rotate d) rotating
- 22 How high _____ the plane when the accident happened?
 a) flew b) was c) is d) flies
- 23 In a suspension bridge, the road is suspended _____ very strong cables.
 a) to b) at c) from d) on
- 24 The water tower is about one metre _____ the building.
 a) to left of b) of the left to
 c) to left d) to the left of
- 25 Why did the security man allow the driver _____ the warehouse?
 a) entering b) enter
 c) to enter d) for entering
- 26 He picked up the spark plug and inspected it. Then he put _____ again.
 a) it down b) down c) down it d) it
- 27 This heavy gate will prevent thieves _____ the warehouse.
 a) by entering b) for enter
 c) to enter d) from entering
- 28 "Has he repaired the brakes yet?" "No, not yet. _____ them."
 a) He still repairs b) He's still repairing
 c) He still is repairing d) He's still repair
- 29 The workman rang the alarm bell by _____ the alarm button.
 a) press b) pressing
 c) presses d) pressed
- 30 Diesel engines are usually much _____ than petrol engines.
 a) noisy b) noisyer c) noisier d) too noisy
- 31 The safety inspectors _____ your oil platform tomorrow.
 a) will to visit b) want visit
 c) to visit d) are visiting
- 32 Nowadays, car bodies _____ by robots, but checked by human workers.
 a) paint b) painted c) are painting d) are painted
- 33 Would you mind _____ me when you plan to deliver my goods?
 a) you inform b) please inform
 c) informing d) inform
- 34 About fifteen computer discs _____ from our company last year.
 a) stole b) were stolen
 c) were stealing d) stolen
- 35 Sprinklers were installed in the laboratory _____ protect it from fire.
 a) to b) for c) and d) so
- 36 _____ you please send your latest catalogue to my office?
 a) Have b) Do c) Could d) Should
- 37 A mobile phone is an electronic device _____ sends and receives voice and text messages.
 a) which it b) that c) who d) that it
- 38 This food must _____ at temperatures below 10°C
 a) to keep b) be keeping
 c) you keep d) be kept
- 39 "What's this instrument for?" "It's for _____ the area of a wall".
 a) measuring b) measurement

- c) measure d) measures
- 40 If your car doesn't start, why don't you try _____ the battery.
a) recharge b) you recharge
c) recharging d) for recharging
- 41 A _____ is a device which sends radio signals to an antenna or satellite dish.
a) transmission b) transmit c) transmitted d) transmitter
- 42 Five new first aid kits should _____ for our new training centre.
a) be bought b) to buy c) buy d) have bought
- 43 If your new radio isn't working, you must _____ to put batteries in.
a) forgot b) be forget c) have forgotten d) forget
- 44 The GPS satellite system can calculate _____ anywhere on Earth.
a) where your location b) your location
c) where are you d) you're located
- 45 My car has two antennas _____ to the roof
a) which attached b) attached
c) are attached d) attach

Technical English Test Masters Level 2 (Pre-Intermediate)

Quick Placement Test

Answer Key

Place the student according to the following scores:

Elementary level = 1 – 25

Pre-intermediate level = 26 – 45

1 d / 2 b / 3 a / 4 c / 5 b / 6 c / 7 d / 8 a / 9 c / 10 a /

11 b / 12 d / 13 c / 14 a / 15 b / 16 d / 17 a / 18 c / 19 b / 20 c /

21 a / 22 b / 23 c / 24 d / 25 c / 26 a / 27 d / 28 b / 29 b / 30 c /

31 d / 32 d / 33 c / 34 b / 35 a / 36 c / 37 b / 38 d / 39 a / 40 c /

41 d / 42 a / 43 c / 44 b / 45 b

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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Текущий контроль

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-intermediate)

Unit Tests

Unit 1

1 Write the correct form of the verb in brackets. Write one word in each space.

- 1 You start this MP3 player by _____ (place) your finger on the screen.
- 2 Have the wheel-gun mechanics _____ (take) the tyres off the car yet?
- 3 Please _____ (wear) your safety helmet and visor in the pit stop lane.
- 4 “Has Bill tested the brakes yet?” “No, not yet. He’s still _____ (test) them.”
- 5 “Have you done it yet?” “No, not yet. I’ll _____ (do) it tomorrow.”
- 6 The racing car driver opens the fuel flap _____ (use) a button in the cockpit.

2 Insert a slash (/) where a word is missing. Write the missing word in the space.

- 7 “Take those old spark plug covers away.” “OK, I’ll take away now.”

- 8 In an emergency, you can stop the train pulling this emergency lever.

- 9 Please take this wrench away and put down on that bench.

- 10 The cycling robot navigates by means a wireless computer.

3 Complete the instructions. Write the correct verb in each space.

Place / Pull / Adjust / Check / Strip / Pick / Raise / Press / Switch / Replace / Tighten / Activate
--

- 11 _____ the old paint off the car body and then paint it again.
- 12 _____ your hammer up from the floor and put it on the bench.
- 13 _____ the fuel hose on your shoulder and carry it to the racing car.
- 14 _____ the dipstick out, and look at the oil level.
- 15 _____ those damaged old tyres with new ones.
- 16 _____ this button and the fuel flap will open.
- 17 _____ the wheel nuts by means of a wheel gun.
- 18 _____ the lights on by pushing this lever down.
- 19 _____ the engine by turning the key and pressing the accelerator pedal.
- 20 _____ the tyre pressure by adding or releasing some air through this valve.
- 21 _____ the oil level by looking at the dipstick.
- 22 _____ the car slowly using the hydraulic jack.

4 Underline the correct answer.

- 23 Have you _____ the new car to the customer’s office?
a) drive b) drove c) driven d) driving
- 24 The new mechanic is _____ the tyres from the car now.
a) remove b) removing c) removed d) removes
- 25 “I’ve switched on the engine.” “OK, please _____ again.”
a) switch off it b) switched off

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 3

1 Write the comparative form of the adjectives in brackets in the spaces. Write either one or two words in each space.

At 1.83 metres, the Toyota Land Cruiser is (1)_____ (high) than the Jeep Cherokee. It also has a (2)_____ (powerful) engine and a (3)_____ (long) wheelbase than the Jeep. The Toyota's fuel tank is (4)_____ (big), and it has a (5)_____ (fast) maximum speed than the Jeep. But the Toyota is (6)_____ (expensive) than the Jeep, and consumes more fuel.

2 Insert a slash (/) where a word is missing. Write the missing word in the space.

7 Let's compare diesel, petrol and LPG. Which fuel is the cleanest the three?

8 "Which helmet do you want?" "I'd like the yellow with the plastic visor, please.

3 Choose the correct answer. Write a letter (a – d) in each space.

9 Mount Everest is _____ mountain in the world.

a) very high b) the highest c) highest of d) higher than

10 The bridge is just under one kilometre _____ .

a) length b) longest c) longer d) long

11 The blue sports car has a larger fuel tank _____ the red car.

a) enough b) for c) than d) to

12 My diploma course is _____ than the certificate course.

a) more difficult b) difficulter c) difficult d) most difficult

13 "Would you like the red phone or the blue phone?" "I'd like the _____ , please."

a) one that blue b) blue one c) one is blue d) one blue

14 The old bridge is not strong enough _____ that heavy lorry.

a) for b) than c) as d) of

15 The boat is too wide _____ the narrow canal.

a) than b) over c) for d) as

16 I need a quiet generator. I'll buy the _____ noisy generator in the shop.

a) worst b) best c) furthest d) least

4 Underline the correct word.

17 Sorry, I didn't hear your name. _____ (Do / Could) you repeat it, please?

18 Excuse me, _____ (could / would) I have your password, please?

19 I _____ (will / would) like to place an order for a new car.

20 Do you think you _____ (would / could) send me a catalogue, please?

21 Would you mind _____ (you spell / spelling) your name for me, please?

22 _____ (Will / Shall) I send the goods to your home address?

5 Match phrases and language functions. Write a letter (A – D) after each sentence.

23 Shall I telephone for an ambulance? _____

24 Did you say 40 or 14? _____

- 25 Would you please send me a new radio? _____
 26 I'd like to cancel my order immediately. _____

LANGUAGE FUNCTIONS

- A saying what you want
 B offering to do something
 C asking someone to do something
 D checking information

6 Complete these four sentences comparing these MP3 players. Do not mention any numbers or units from the table.

	Muzak	Dinn	
Length	120 mm	105 mm	27 The Muzak is _____ than the Dinn.
Width	65 mm	56 mm	28 The Dinn is _____.
Thickness	12.6 mm	9.1 mm	29 The Muzak is _____.
Weight	145 g	102 g	30 The Dinn is _____.

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 3 Answer Key

- 1** 1 higher / 2 more powerful / 3 longer / 4 bigger / 5 faster / 6 more expensive
2 7 cleanest of the / 8 yellow one with
3 9 b / 10 d / 11 c / 12 a / 13 b / 14 a / 15 c / 16 d
4 17 Could / 18 could / 19 would / 20 could / 21 spelling / 22 Shall
5 23 B / 24 D / 25 C / 26 A
6 27 The Muzak is longer than the Dinn. / 28 The Dinn is narrower (*or* less wide) than the Muzak. / 29 The Muzak is thicker than the Dinn. / 30 The Dinn is lighter (*or* less heavy) than the Muzak.

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 4

1 Write a verb from the box in each space.

extract / display / supply / receive / operate / convert / transmit / monitor

- 1 The mobile phone will _____ a high-frequency radio signal to the tower.
 2 The purpose of the antenna is to _____ signals from the satellite.
 3 The screen on my MP3 player can _____ numbers, letters, images and
 films.
 4 You need a DTV card in your computer to _____ the video and audio from
 the signal.
 5 My calculator has solar batteries, which _____ light into a small electric
 current.
 6 You _____ the fire alarm by pressing this large red button.
 7 Two security men in that cabin use video cameras to _____ every process
 in the factory.
 8 If there is a power cut in the city, a powerful generator will _____
 electricity to our house.

2 Write the correct question word in each space.

- 9 “_____ are cars painted by robots?” “To make the work faster and more
 accurate.”
 10 “_____ are new cars tested?” “By placing them on rollers and monitoring
 them.”
 11 “_____ is the body attached to the chassis?” “In the final assembly line.”
 12 “_____ inspects the safety equipment?” “It’s done by the chief safety
 officer.”
 13 “_____ happens if the computer breaks down?” “It’s reported to the IT
 technician.”
 14 “_____ are the windows added to the car body?” “That’s done after the
 painting”.

3 Delete one wrong word (or phrase) in each list.

- 15 parts of a car: *body, chassis, drive shaft, feed horn, axle, transmission*
 16 areas in a car assembly plant: *body shop, paint shop, trim line, electrical shop,*
chassis *line*
 17 parts of a tunnel drill: *cutter, scoop, detector, chute, conveyor belt, cabin*
 18 digital TV setup: *DTV card, hydraulic cylinder, satellite dish, feed horn, signal,*
cable

4 Choose the correct answers. Write a letter (a – d) in each space.

- 19 More than 400 robots _____ the average modern car.
 a) assemble b) are assembled c) assembling d) to assemble
 20 The satellite dish has a feed horn _____ change the signal from high to low
 frequency.
 a) for b) by c) with d) to
 21 The paint on a new car is inspected _____ human workers, not robots.
 a) to b) by c) with d) from
 22 The tunnel drill _____ by fifteen powerful motors.
 a) is driving b) drives c) is driven d) driving
 23 The robots in the paint shop _____ by means of a single computer program.
 a) control b) are controlled c) controlled d) are controlling
 24 The finished car is placed on rollers, _____ rotate under the car wheels.
 a) which b) when c) who d) where
 25 Could you please go to the shop and buy a _____ for the workshop.
 a) lamp of 100 watt b) 100-watts lamp
 c) 100-watt lamp d) lamp for 100 watts

- 26 Please go to the supervisor, _____ will take you to your new office.
a) then b) which c) and d) who

5 Rewrite the sentences using the passive.

- 27 A powerful drill digs the tunnel.
The tunnel _____.
- 28 Forklift trucks carry the car parts around the factory.
The car parts _____.
- 29 Robots take the old wheels off the car.
The old wheels _____.
- 30 The Earth station transmits the TV programmes to the satellite.
The TV programmes _____.

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 4 Answer Key

- 1** 1 transmit / 2 receive / 3 display / 4 extract / 5 convert / 6 operate / 7 monitor / 8 supply
- 2** 9 Why / 10 How / 11 Where / 12 Who / 13 What / 14 When
- 3** 15 feed horn / 16 electrical shop / 17 detector / 18 hydraulic cylinder
- 4** 19 a / 20 d / 21 b / 22 c / 23 b / 24 a / 25 c / 26 d
- 5** 27 The tunnel is dug by a powerful drill. / 28 The car parts are carried around the factory by forklift trucks. / 29 The old wheels are taken off the car by robots. / 30 The TV programmes are transmitted to the satellite by the Earth station.

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 5

1 Complete the tables.

verb	noun
(1) to _____	calculator
(2) to _____	container
(3) to _____	conductor
(4) to _____	propeller

adjective	noun
(5) _____	cone
(6) _____	circle
(7) _____	cylinder
(8) _____	rectangle

2 Write a word from the box in each space.

device / system / tool / vehicle

- 9 The air conditioning _____ in this building is very good.
- 10 A wheel wrench is a very useful _____ for tightening and loosening wheel nuts.
- 11 A solar-powered car is a new type of _____ which uses energy from the sun.
- 12 A mouse is a _____ that allows you to move a cursor around a computer screen.

- 3 Underline the correct word in brackets.**
- 13 From the air, the building is (*triangle / triangular*) in shape.
- 14 My new web camera is in the shape of a (*sphere / spherical*).
- 15 Look at my new pen. It's (*shapes / shaped*) like a banana.
- 16 The wings of an aeroplane lift the plane. They also act as (*stabilizing / stabilizers*).
- 4 Write a word from the box in each space.**
- 17 My watch has two functions. It tells the time, but it can also act _____ a stopwatch.
- 18 The pod of the Man Overboard alarm system is in the shape _____ an egg.
- 19 MP3 players are mainly used _____ downloading music, but they can also show pictures.
- 20 This new robotic device is designed _____ dig holes up to 20 metres deep.
- 21 Look at that building. It's shaped _____ a large cube.
- 22 The plan of the new sports stadium is _____ the shape of a large letter O.
- 5 Choose the correct answers. Write a letter (a – d) in each space.**
- 23 A space shuttle is used _____ astronauts up to the space station.
a) for transport b) for transporting
c) as transport d) to transporting
- 24 This device _____ a heater in the winter and a cooler in the summer.
a) acts as b) is for c) used as d) designed to
- 25 My new invention is _____ help students to do their homework.
a) act as b) used for c) designed to d) function to
- 26 Here's a definition of a pen: it's a device _____ transfers ink to a sheet of paper.
a) to b) what c) it d) that
- 27 The dynamo on my bicycle lamp _____ enough electricity for the lamp.
a) generator b) generation c) generating d) generates
- 28 A chronometer is an instrument _____ time very exactly.
a) measure b) which measures c) measures d) it measures
- 29 The antenna on my mobile phone acts as a small radio _____.
a) transmit b) transmission c) transmitter d) transmitting
- 30 A sub-sea engineer is an engineer _____ works below the surface of the sea.
a) who b) which c) what d) he

Technical English Test Masters Level 2 (Pre-Intermediate)
Unit Test 5 Answer Key

-
- 1** 1 calculate / 2 contain / 3 conduct / 4 propel / 5 conical / 6 circular / 7 cylindrical / 8 rectangular
- 2** 9 system / 10 tool / 11 vehicle / 12 device
- 3** 13 triangular / 14 sphere / 15 shaped / 16 stabilizers
- 4** 17 as / 18 of / 19 for / 20 to / 21 like / 22 in
- 5** 23 b / 24 a / 25 c / 26 d / 27 d / 28 b / 29 c / 30

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)
Unit Tests
Unit 6

-
- 1 Choose the correct answers. Write a letter (a – f) in each space.**
- 1 An emergency signal has _____ to all ships in the area.
a) to be sent b) to sent c) sent d) be sent
- 2 That report _____ written before the end of next week.

- 3 a) need to be b) has c) needs to be d) needs
Those dangerous chemicals _____ brought into this secure room.
- 4 a) never be b) must not be c) do not ever d) must not
Seat belts _____ at all times during the flight.
- a) should wear b) should to wear
c) should worn d) should be worn

2 Delete one wrong item in each list.

5 First aid for injured people: CPR, fire evacuation, artificial respiration, recovery position

6 Safety hazards: ignition source, chemical spill, assembly point, aisle blockage

7 Places in a warehouse: aisle, shelves, ramp, gantry

8 Places on a motorway: flyover, U-turn, underpass, sliproad

3 Underline the correct word or phrase.

- 9 Fork lift trucks (*have to be / must not be*) overloaded.
- 10 Pallets (*should be / must not be*) left in the aisles of the warehouse.
- 11 Hand trucks have to be (*pushed / pulled*) down a ramp.
- 12 Gas cylinders (*need to be / must not be*) strapped to hand trucks or forks.
- 13 If a wet suit is inflated it (*will become / will not be*) buoyant.

4 Match the parts of the sentences. Write a letter (A – F) in each space.

14 Tow _____

15 Attract _____

16 Locate _____

17 Mark _____

18 Secure _____

19 Evacuate _____

- A help by shouting or sounding an alarm.
- B the position of the trapped diver by placing a buoy above him.
- C the building immediately through this exit if the fire alarm sounds.
- D your car to the garage if you can't start it.
- E the boxes to the pallet with a chain or strap.
- F the trapped diver by swimming below his boat and looking for him.

5 Write a word from the box in each space. Use each word once only.

junction / turning / crossroads / exit / left

Drive through the gate into the campus. Soon you will come to a roundabout. At the roundabout, take the third (20) _____. Then go straight ahead to the T - (21) _____, and turn left. Go straight through the next (22) _____. Next you will pass a large building on your (23) _____. After this building, take the first (24) _____ on your right. Our department is straight ahead.

6 Rewrite these to give the same meaning in the passive. Do not mention we, you or us.

- 25 We should buy new safety equipment for the workshop.
New safety equipment should _____.
- 26 You must not freeze this food more than once.
This food must _____.
- 27 You should wear overalls at all times in the factory.
Overalls _____.
- 28 Never carry people on the forks of a forklift truck.

- People _____.
- 29 You have to keep this container below 25°C.
This container _____.
- 30 We need to leave this box in a secure locked area.
This box _____.

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 6 Answer Key

- 1** 1 a / 2 c / 3 b / 4 d
- 2** 5 fire evacuation / 6 assembly point / 7 gantry / 8 U-turn
- 3** 9 must not be / 10 must not be / 11 pushed / 12 need to be / 13 will become
- 4** 14 D / 15 A / 16 F / 17 B / 18 E / 19 C
- 5** 20 exit / 21 junction / 22 crossroads / 23 left / 24 turning
- 6** 25 be bought for the workshop. / 26 not be frozen more than once. / 27 should be worn at all times in the factory. / 28 must never be carried on the forks of a forklift truck. / 29 has to be kept below 25°C. / 30 needs to be left in a secure locked area.

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 7

- 1 Choose the correct answers. Write a letter (a – d) in each space.**
- 1 “My new CD is bent!” “You must have _____ it in the hot sun all day.”
a) leave b) be leaving c) left d) to leave
- 2 “My printer isn’t working.” “The cable _____ loose.”
a) might b) might have c) might be is d) might be
- 3 “My car doesn’t start.” “Some sand could _____ the carburettor.”
a) be blocking b) blocking c) is blocking d) be is blocking
- 4 “What should I do?” “Try _____ out the fuel system.”
a) you clean b) cleaning c) clean d) for cleaning
- 5 “Do you have any other suggestions?” “Why _____ call a mechanic?”
a) you don’t b) you not c) don’t you d) are you
- 6 This pyramid _____ more than 3000 years ago.
a) was constructed b) construction
c) constructed d) is constructed
- 7 New modules _____ installed in the International Space Station last month.
a) they b) have c) are d) were
- 8 My new suitcase _____ when it fell from the aeroplane.
a) is dented b) were dents c) was dented d) has dented

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 8

1 Choose the correct answer. Write a letter (a – d) in each space.

- 1 The car moves faster _____ your foot touches the accelerator pedal
 a) that b) which c) than d) when
- 2 _____ the door opened, cold air entered the room.
 a) As b) From c) To d) For
- 3 When the piston _____ down the chamber, it pushes oil along the pipes.
 a) moved b) move c) moves d) moving
- 4 The worker pressed the button, _____ made the alarm bell ring.
 a) because b) which c) when d) to
- 5 The petrol flows into the fuel tank. _____ the fuel is stored until later.
 a) Here b) Where c) Which d) As
- 6 The moving water turns the turbine, which _____ the electricity.
 a) is generated b) generating c) to generate d) generates

2 Underline the correct words.

- 7 An (*operation / operator*) is a person who operates a machine.
- 8 A (*compressor/compression*) pumps fluid around a system of pipes.
- 9 The fluid in a refrigerator is called a (*refrigerant/ refrigeration*).
- 10 The fluid (*evaporates / evaporators*) inside this set of coiled pipes.

3 Write a word from the box in each space.

linear / clockwise / reciprocating / oscillating
--

- 11 The hands of a clock move _____.
- 12 The motion of a pendulum from side to side is _____.
- 13 The flow of water one way along a pipe is _____.
- 14 The two-way movement of a piston up and down is _____.

4 Match parts of phrases about car engines. Write a letter (A – F) in each space.

- 15 spark _____
- 16 crank _____
- 17 inlet _____
- 18 top dead _____
- 19 power _____
- 20 internal _____
- A stroke
- B centre
- C plug
- D combustion
- E shaft
- F valve

5 Write a word from the box in each space.

turbine, shaft, hydraulic, buoy, chamber, absorb
--

- 21 The _____ floats on the surface of the sea and marks the location of the

rocks.

- 22 A fluid (such as water or oil) is pushed under pressure along a _____ pipe.
23 The piston of the car engine moves up and down inside a sealed _____.
24 When the evaporators _____ heat from the air, they make the air colder.
25 Water from the hydro-electric dam turns the blades of a powerful _____.
26 When a magnetic _____ moves inside a metal coil, it produces an electric current.

6 Join each pair of sentences into a single sentence with the same or similar meaning. Use one of the words in the box. Do not use the underlined words. Add capital letters where necessary.

which / when / that / as

- 27 The refrigerant flows through the evaporator. At the same time, it takes in heat from the air.
_____.
- 28 The exhaust valve opens. This allows the burnt gases to escape from the engine.
_____.
- 29 The fire alarm sounds. Immediately afterwards, everyone should leave the building.
_____.
- 30 An expansion valve is a device. This device decompresses the refrigerant.
_____.

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 8 Answer Key

- 1** 1 d / 2 a / 3 c / 4 b / 5 a / 6 d
2 7 operator / 8 compressor / 9 refrigerant / 10 evaporates
3 11 clockwise / 12 oscillating / 13 linear / 14 reciprocating
4 15 C / 16 E / 17 F / 18 B / 19 A / 20 D
5 21 buoy / 22 hydraulic / 23 chamber / 24 absorb / 25 turbine / 26 shaft
6 27 As the refrigerant flows through the evaporator, it takes in heat from the air. /
28 The exhaust valve opens, which allows the burnt gases to escape from the engine. / 29 When the fire alarm sounds, everyone should leave the building. / 30 An expansion valve is a device that (*or* which) decompresses the refrigerant.

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Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 9

1 Choose the correct answers. Write a letter (a – d) in each space.

- an you come and collect me?” “Of course I can. Tell me _____ now.”
- a) what your position b) where are you
c) where you are d) are you where
- 2 The _____ shows you the speed of the oil as it flows along the pipe.
a) oil meter flow b) oil flow meter
c) flow oil meter d) meter oil flow
- 3 We need to find out _____ the river before we dig the tunnel.
a) the depth of b) how deep c) how is deep d) the depth is
- 4 Before every race, you have to make sure _____ the brakes are working.
a) of b) to c) and d) that
- 5 The pilot checked his altimeter to see _____ above the sea.
a) how he was high b) how his height
c) how high he was d) he was how high
- 6 The _____ is a gauge which measures the pressure of the air.
a) pressure air gauge b) gauge air pressure
c) air gauge pressure d) air pressure gauge
- 7 Change the motor oil every nine months, or every 10,000 km, _____ is the sooner.
a) forever b) whichever c) wherever d) however
- 8 Please measure the width of your MP3 player. Use any measuring device, _____ a ruler.
a) such as b) that is c) in addition d) in other words
- 9 We have now completed _____ our training course, or exactly 40%.
a) two fifths b) two from five
c) two fifths of d) two fives of
- 10 Use that thermometer to find out _____ the oven is.
a) how hot b) how heat c) the heat d) the temperature

2 Match instruments and what they measure. Write a letter (A – F) in each space.

- 11 An odometer _____
12 A tachometer _____
13 A barometer _____
14 A GPS system _____
15 A stop watch _____
16 A set of scales _____
- A speed
B location
C weight
D time
E pressure
F distance

3 Write a word from the box in each space.

shear / tension / compression / torsion

- 17 The weight of a building applies the force of _____ onto its base and foundations.
- 18 The deck of a suspension bridge applies the force of _____ to the cables.
- 19 When you tighten or loosen a nut or bolt, you are applying the force of _____.
- 20 When you cut paper with a pair of scissors, you are applying _____ force to the paper.

4 One word is missing from each sentence. Put a slash (/) in the right place, and write the word in the space.

- 21 The cyclists have completed about three eighths the total distance. _____
- 22 I think that GPS stands Global Positioning System. _____
- 23 Your bike brakes should inspected before every race. _____
- 24 You should change your oil filter 3000-km intervals. _____
- 25 The GPS system can find your location a tolerance of 6 metres. _____
- 26 To calculate the area of the room, multiply the width the length. _____

5 Complete the definitions of these devices or systems.

- 27 An altimeter is a device that _____.
- 28 GPS is a system _____ for _____.
- 29 Radar is a system that _____.
- 30 A sensor is a device _____ which _____.

Technical English Test Masters Level 2 (Pre-Intermediate)
Unit Test 9 Answer Key

- 1 1 c / 2 b / 3 a / 4 d / 5 c / 6 d / 7 b / 8 a / 9 c / 10 a
- 2 11 F / 12 A / 13 E / 14 B / 15 D / 16 C
- 3 17 compression / 18 tension / 19 torsion / 20 shear /
- 4 21 eighths of the / 22 stands for Global / 23 should be inspected / 24 filter at 3000-km / 25 location with a / 26 width by the
- 5 [different answers are possible] 27 measures your height (or how high you are) above sea level. / 28 calculating your exact location (or where you are). / 29 calculates the distance of an object (or how far away an object is). / 30 detects changes in the environment (and converts them into data).

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Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 10

1 Choose the correct answers. Write a letter (a – d) in each space.

- 1 The plastic in these sunglasses cannot be _____ easily if you drop them.
a) break b) broken c) breaking d) broke
- 2 I want to find out _____ this plastic will bend under pressure.
a) if b) to c) of d) and
- 3 Bridge piers are made of concrete because this material has good _____ strength.
a) compress b) compression c) compressive d) compressed
- 4 The purpose of the tensile test is _____ whether the material breaks when it is stretched.
a) discover b) to discover c) discovered d) will discover
- 5 The new car is very safe, as _____ in Figure 1.
a) showing b) is showing c) show d) shown
- 6 The ceramic in a spark plug is not _____.
a) combusting b) combustion c) combustibile d) combust
- 7 The fire caused a lot of damage, _____ you can see in this photograph.
a) what b) when c) that d) as
- 8 The rivets in the Titanic were very weak, and _____ they broke easily.
a) result b) as a result c) the result d) so the result
- 9 Please look at this graph. The graph indicates _____ there were many accidents last year.
a) to b) as c) that d) for
- 10 The train crashed _____ the heat expanded and bent the railway lines.
a) because b) therefore c) so d) for
- 11 I'd like to start my talk by _____ you for coming here today.
a) I thank b) thank c) thanks to d) thanking
- 12 In Japan, it is very important to construct _____ buildings.
a) earthquake-resistant b) earthquakes-resisting
c) resist-earthquakes d) resisting-earthquakes

2 Complete this table.

adjective	concept noun
rigid	13 _____
flexible	14 _____
elastic	15 _____
compressive	16 _____

- 3 Write a word or phrase from the box in each space.**
- 7 We increased the pressure on the metal bar. Then it reached its _____, and it bent.
- 18 The column is vertical, the beam is horizontal, and the _____ is diagonal.
- 19 To test the _____ of a material, you have to strike it hard with a hammer.
- 20 To find out the _____ of a cable, attach one end to a hook, and pull the other end.
- 21 If you strike gold or lead with a hammer, it will _____ very quickly.
- 22 This glass can _____ heat up to 1650°C, but above this temperature it will melt.

4 Write a verb ending in -en in each space. The verb must have the same meaning as the phrase in brackets.

- 23 You can _____ concrete by adding steel rods. (make it stronger)
- 24 Too much water will _____ the concrete. (make it weaker)
- 25 Please _____ that rope by about 10 cm. (make it shorter)
- 26 Please put that bent metal bar into a vice and _____ it. (make it straighter)

5 Rewrite these sentences to give the same or similar meaning using the words in brackets.

- 27 The cables in a suspension bridge have good tensile strength.
 _____ (strong; tension)
- 28 The plastic in this safety helmet has poor impact resistance.
 _____ (withstand)
- 29 The alarm system in the factory is visible but not audible.
 _____ (seen; heard)
- 30 The steel and concrete foundations are strong when they are compressed.
 _____ (compressive)

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 10 Answer Key

-
- 1** 1 b / 2 a / 3 c / 4 b / 5 d / 6 c / 7 d / 8 b / 9 c / 10 a / 11 d / 12 a
- 2** 13 rigidity / 14 flexibility / 15 elasticity / 16 compression
- 3** 17 yield point / 18 brace / 19 impact resistance / 20 tensile strength / 21 deform / 22 withstand
- 4** 23 strengthen / 24 weaken / 25 shorten / 26 straighten
- 5** [different answers are possible] 27 The cables in a suspension bridge are strong in tension. / 28 The plastic in this safety helmet cannot (or can't) withstand impact. / 29 The alarm system in the factory can be seen but can't be heard. / 30 The steel and concrete foundations have good compressive strength.

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Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 11

1 Choose the correct answers. Write a letter (a – d) in each space.

- 1 How _____ you suggest that we could improve the design of the kite?
 a) are b) have c) were d) would
- 2 The main advantage of this new plane is _____ it consumes less fuel.
 a) this b) that c) than d) then
- 3 I suggest that you _____ build a new kind of robot.
 a) should b) have c) want d) shall
- 4 The aim of my talk is _____ you about our company's new product.
 a) telling b) by telling c) to tell d) told
- 5 So now _____ look at another important feature of the new design.
 a) let b) we let's c) let's we d) let's
- 6 Finally, I _____ like to say a few words about the benefits of this system.
 a) will b) shall c) would d) could

2 Match headings with information. Write a letter (A – H) next to each heading.

- 7 Occupation of user: _____
- 8 Function or purpose of robot: _____
- 9 Frequency of use: _____
- 10 Dimensions: _____
- 11 Materials and properties: _____
- 12 Shape and appearance: _____
- 13 Operation and activation: _____
- 14 Strength(s): _____
- 15 Weakness(es): _____
- 16 Suggested improvements: _____

- A The robot is voice-activated and battery-operated.
- B The robot is used about five times per week.
- C The main drawback of the design is its small size.
- D The user is an electrical technician in a switchgear factory.
- E The robot is 20 cm high, 15 cm wide and 10 cm high.
- F An important advantage is that the robot is very lightweight.
- G The voice-activation sensor in the robot should be strengthened.
- H The robot is used for carrying electrical parts to the user.
- I The robot is semi-cylindrical and looks like a large insect.
- J The robot is made of aluminium and an impact-resistant plastic.

3 Write a word from the box in each space.

drag / thrust / lift / weight

- 17 The power of an aeroplane's engine provides the _____ for the plane.
- 18 The _____ of the plane is in fact the force of gravity pulling the plane downwards.
- 19 The friction of the wings and fuselage of the plane moving against the air causes

20 The shape of the wings reduces pressure above the wings. This creates _____

4 Match beginnings and endings of sentences. Write a letter (A – F) in each

space.

- 21 We need an aeroplane which consumes less _____
22 The air is sucked in through the intake _____
23 Pull the cargo ship using the traction _____
24 Today's cars cause too much carbon _____
A port.
B fuel.
C emission.
D kite.

5 Delete one wrong word in each list.

- 25 Aeroplane parts or dimensions: *wingtip, fuselage, propeller, capsule, wingspan*
26 Properties of parts or materials: *tough, flexible, lightweight, air pressure, low*

friction

6 Write four sentences describing the design of this aeroplane.

Eco-friendly planes: the propeller plane

Function of propellers: make air flow smoothly; reduce wing drag

Strength(s): 30% less fuel

Weakness(es): slower (675 km/ h); noisier

Suggestion for improvement: locate propellers at rear of plane

- 27 The function of _____
28 The strength of _____
29 The main weaknesses are _____
30 To improve the design, I would _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 11 Answer Key

- 1** 1 d / 2 b / 3 a / 4 c / 5 d / 6 c
2 7 D / 8 H / 9 B / 10 E / 11 J / 12 I / 13 A / 14 F / 15 C / 16 G
3 17 thrust / 18 weight / 19 drag / 20 lift
4 21 B / 22 A / 23 D / 24 C
5 25 capsule / 26 air pressure
6 *[different answers are possible]* 27 The function of the propellers is to make the air flow smoothly, which reduces wing drag (*or* and to reduce wing drag). / 28 The strength of this design is that it consumes (*or* uses) 30% less fuel than today's planes. / 29 The main weaknesses are that the plane is slower (at 675 km/ h) than other designs, and it is noisier. / 30 To improve the design, I would suggest that the propellers should be located at the rear of the plane.
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Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Tests

Unit 12

1 Choose the correct answers. Write a letter (a – d) in each space.

- 1 The first wells were dug using wooden cutting tools _____ were attached to a rope.
a) they b) and c) which d) who
- 2 In oil drilling, the rock is _____ by a drill bit which rotates at high speed.
a) cuts b) cut c) cutting d) cutted
- 3 Many people believe that the first parachute _____ by Leonardo da Vinci,
a) inventor b) is invented c) invented d) was invented
- 4 The burglar alarm is activated by a sensor _____ above the door of the building.
a) located b) which located c) is located d) locating
- 5 What technology or principle is this new alarm system _____?
a) basing on b) based c) based on d) basing
- 6 In 2007 our company manufactured a new robot _____ one of our young engineers.
a) design b) designed by c) designs by d) designer
- 7 These two young technicians _____ in this company since 2007.
a) have worked b) are working c) work d) were worked
- 8 Hydrogen and oxygen are supplied to the fuel cell, which then _____ electricity for the motor.
a) is supplied b) supplying c) are supplied d) supplies

2 Underline the correct word in brackets.

- 9 The sensors are (*located / location*) at the rear of the car under the window.
- 10 When the car is (*accelerating / decelerating*), the wheels are rotating more slowly.
- 11 How are the storage tanks (*connect / connected*) to the fuel cell?
- 12 The car engine is (*cruising / idling*) now, so the wheels are not moving at all.

3 Match beginnings and endings. Write a word from the box in each space.

pawl / rod / pinion / follower

- 13 rack and _____
- 14 cam and _____
- 15 crank and _____
- 16 ratchet and _____

4 Delete one wrong word in each list.

17 hand tools: *knife, abacus, scythe, saw, derrick, chisel*

18 simple machines: *gear, lever, pulley, laser, screw, wedge*

5 Match questions and answers. Write a letter (A – F) in each space.

19 What are the advantages and disadvantages of hydrogen as a fuel? _____

20 What are the main components of a fuel cell? _____

21 What happens in a fuel cell car when it is braking or decelerating? _____

22 Where are the hydrogen storage tanks located? _____

23 Why is the fuel cell positioned below the passenger area of the car? _____

24 How are the hydrogen storage tanks connected to the fuel cell? _____

- A When this happens, electricity is generated by the wheels and sent to the capacitor.
- B They're linked by means of pipes which are made of a pressure-resistant metal.
- C They're positioned at the rear of the car behind the fuel cell.
- D It has zero carbon emissions, but unfortunately it is expensive to manufacture.
- E This is done to provide more space for the other components.
- F It consists of an anode and a cathode, separated by a membrane.

6 Complete this dialogue. Use the correct form of the verbs in brackets.

Q: How did people dig wells in the past?

A: The boreholes (25)_____ (make) by a process called percussion drilling. A heavy cutting tool (26)_____ (lift) up by a rope, and then dropped onto the rock. The weight of the tool (27)_____ (break) the rock.

Q: How do people dig oil wells today?

A: A deep hole (28)_____ (dig) into the ground using a method called rotary drilling. A powerful engine (29)_____ (turn) a sharp drill inside the hole. The rock layers (30)_____ (break) by the drill bit, which rotates at high speed.

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Technical English Test Masters Level 2 (Pre-Intermediate)

Unit Test 12 Answer Key

-
- 1** 1 c / 2 b / 3 d / 4 a / 5 c / 6 b / 7 a / 8 d
- 2** 9 located / 10 decelerating / 11 connected / 12 idling
- 3** 13 pinion / 14 follower / 15 rod / 16 pawl
- 4** 17 derrick / 18 laser
- 5** 19 D / 20 F / 21 A / 22 C / 23 E / 24 B
- 6** 25 were made / 26 was lifted / 27 broke / 28 is dug / 29 turns / 30 are broken

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Промежуточная аттестация

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Progress Test 3 (CB2 Units 5 – 6)

There are 60 questions. Answer all questions.

SECTION 1: VOCABULARY

1 Write the correct word from the box in each space. You don't need all the words.

aisle / submerged / evacuation / respiration / ramp / buoyant

1 Put on your lifejacket whenever you go on a boat. If you fall overboard the jacket will keep you _____.

2 The _____ between the two sections of the warehouse is very steep (at a 20 degree angle). When you drive the forklift truck down it, please drive slowly.

3 If the injured diver remains _____ below the surface of the water, inflate his jacket with air. This will make him rise to the surface.

4 After an electric shock, the casualty may stop breathing. If this happens, you have to give him artificial _____.

2 Complete the sentences, using words from the box. Change the form of the words in the box to fit correctly into the sentences.

For example: propel – propeller; calculator – calculating

stabiliser / circular / generate / triangle / transmit / hemisphere / receiver / semicircle

The moving parts of the car engine act as a _____ to provide electricity for the battery.

6 Cut an orange into two equal parts and they will both be approximately _____ in shape.

7 The small antenna on the roof of her car is for _____ radio signals from a satellite.

8 The four sides of the Egyptian pyramids have a _____ shape, but the base is square.

9 If the cycling robot hits a bump in the road, a special sensor _____ the bicycle and prevents it from falling.

10 The entrance to the road tunnel is almost _____ in shape.

11 The large dish on the right side of the satellite is the _____: it sends the signals to Earth.

12 The flag of Japan is a large red _____ in a white square.

3 Underline the correct word in brackets.

13 A four-wheel-drive (4 X 4) is a useful (*device / specialist / vehicle / instrument*) for driving on wet, sandy or rocky surfaces.

14 A theodolite is a precision (*instrument / vehicle / process / specialist*) which is used by surveyors for measuring the land.

15 The global positioning (or GPS) (*device / instrument / vehicle / system*) consists of at least three satellites connected to a hand-held receiver.

16 An X-ray technician is a (*device / tool / specialist / system*) who operates the X-ray machine in a hospital or clinic.

SECTION 2: GRAMMAR

4 Choose the correct answers. Write a, b, c or d in each space.

- 17 I've never seen this tool before. What's it used _____?
a) to b) for c) do d) of
- 18 The Man Overboard alarm is _____ find people who fall off a boat into the sea.
a) function to b) used for c) designed to d) act as
- 19 My new invention is an instrument _____ measures walls using a laser beam.
a) that b) what c) for d) to
- 20 A communications satellite is used _____ radio signals to receivers on Earth..
a) to transmitting b) for transmit
c) as transmitter d) for transmitting
- 21 The suspension system on a car _____ a cushion and protects it from bumps in the road.
a) is for b) acts as c) designed to d) used as
- 22 A hovercraft is a vehicle _____ people, goods and vehicles over land and sea.
a) which carries b) what carries
c) that it carries d) it carries
- 23 The wings on an aeroplane make the plane rise, and also act as _____.
a) stabilise b) stabilises c) stabilisers d) stabilising
- 24 The fire drill _____ held before the end of this week.
a) need be b) needs to c) need to be d) needs to be
- 25 These boxes contain frozen foods. They have to _____ in the refrigerator.
a) be kept b) keep c) kept d) have kept
- 26 Fire extinguishers _____ taken away from their places in the workshop.
a) do not ever b) must not be
c) never be d) you must not
- 27 The training department should _____ a new computer system for the staff.
a) be bought b) bought c) buy d) to buy
- 28 Hard hats must _____ everywhere on the building site.
a) wear b) to wear c) worn d) be worn

5 There is one mistake in each sentence. Write them correctly.

- 29 After an accident, the casualty should covered with a blanket.
_____.
- 30 Drive straight ahead and then take the second turning the right.
_____.
- 31 The base of the building is roughly X-shape.
_____.
- 32 Workers must never be carry on the forks of a forklift truck.
_____.
- 33 A demand valve used for control the flow of breathing gas to the diver.
_____.
- 34 A fire exit is a special door allows people to escape from a fire.
_____.

SECTION 3: READING

6 These phrases are missing from description of the fire extinguisher. Decide where they fit. Write a letter (A – J) in each space.

- A high pressure
B up the siphon and out through the nozzle
C the compressed fluid from escaping
D to aim it directly at the fuel

- E be used on electrical fires
- F the spring-mounted valve move down
- G conduct the current
- H press down the operating lever at the top of the cylinder
- I from flowing into the nozzle from the siphon
- J which strikes the gas cylinder and breaks it open

Water-based fire extinguisher

The fire extinguisher is a strong metal cylinder which is filled with water. A plastic siphon tube leads from the bottom of the cylinder to the nozzle at top of the extinguisher. A spring-mounted valve prevents water (35)_____.

At the top of the cylinder, there is a smaller cylinder which is filled with compressed liquid carbon dioxide. A release valve stops (36)_____.

To use the extinguisher, you pull out the safety pin and (37)_____. The lever pushes on an activating rod, which makes (38)_____ . This opens up the passage to the nozzle.

The bottom of the activating rod has a sharp point, (39)_____. The compressed gas escapes and pushes down the water in the main cylinder with (40)_____. This drives the water (41)_____ with great force.

The correct way to use the extinguisher is (42)_____ (not at the flames themselves) and to move the stream of water from side to side.

A water extinguisher can put out things like burning wood, paper or cardboard, but it must not (43)_____. In an electrical fire, the water may (44)_____, which can electrocute you.

SECTION 4: WRITING

- 7 **A safety inspector inspected a warehouse, and noticed some security and safety problems. Read his report, and complete his recommendations and new safety rules. Use the correct form of the verb(s) in brackets.**

Report of safety inspection

Security problems

(45) I saw that the wire fence around the warehouse was broken in three places.

(46) In addition, there were no lights or CCTV cameras around the north fence.

(47) Inside the warehouse, some very valuable goods, such as gold and jewels, were on open shelves. They were not all inside locked wire cages.

Safety problems

(48) I saw a box on the ground in an aisle, and then a warehouseman walked along the aisle and kicked the box under a shelf.

(49) A forklift truck had a flat tyre, but the truck driver drove the truck around the warehouse.

(50) Another forklift truck driver drove his truck too fast (it was about 10 mph). The speed limit in a warehouse is 5 mph.

(51) The same driver crashed the top of the truck against a low ceiling. The ceiling was too low for the top of the truck.

(52) Another forklift truck driver drove his truck forwards up a ramp (this was dangerous).

Recommendations

45 The wire fence around the warehouse should _____. (repair)

46 Lights and CCTV cameras _____. (install)

47 Valuable goods _____. (keep)

New safety rules

48 Boxes or other objects must _____. (carry from aisle)

49 Forklift truck drivers _____.
(check; adjust; before they drive)

50 The 5mph speed limit _____. (break)

- 51 If the ceiling _____ the top of the truck, the truck
 _____ . (drive)
- 52 Forklift trucks _____ . (reverse)

SECTION 5: LISTENING

Track 4

8 Listen twice to the discussion about how to rescue an injured diver. Mark these statements true (T) or false (F) according to the discussion.

- 53 When the diver is found, place a buoy above him to mark his position. _____
- 54 If the diver's oxygen supply is low, pump some more oxygen into his tank. _____
- 55 The diver should be brought up to the surface as quickly as possible. _____
- 56 At the surface, if the diver begins to sink, pump some air into his wet suit. _____
- 57 Don't give artificial respiration in the water. Get him into a boat and then do it. _____
- 58 Pull the diver to a boat if possible, but don't try to tow him to the land. _____
- 59 If he needs immediate treatment, take him to a hospital. _____
- 60 Treat the diver for serious injury when the diver is on the helicopter. _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Progress Test 3 (CB2 Units 5 – 6) Answer Key

Section 1: Vocabulary

1 buoyant / 2 ramp / 3 submerged / 4 respiration / 5 generator / 6 hemispherical / 7 receiving / 8 triangular / 9 stabilises / 10 semicircular / 11 transmitter / 12 circle / 13 vehicle / 14 instrument / 15 system / 16 specialist

Section 2: Grammar

17 b / 18 c / 19 a / 20 d / 21 b / 22 a / 23 c / 24 d / 25 a / 26 b / 27 c / 28 d / 29 should be covered / 30 the second turning on the right / 31 X-shaped / 32 Workers must never be carried / 33 for controlling (*or* to control) / 34 a special door which (*or* that) allows

Section 3: Reading

35 I / 36 C / 37 H / 38 F / 39 J / 40 A / 41 B / 42 D / 43 E / 44 G

Section 4: Writing

(Note: other answers are possible)

45 The wire fence around the warehouse should be repaired. / 46 Lights and CCTV cameras should be installed around the north fence. / 47 Valuable goods should be kept inside locked cages. / 48 Boxes or other objects must be carried from the aisle. / 49 Forklift truck drivers must check and adjust their tyres before they drive. / 50 The 5mph speed limit must not be broken. / 51 If the ceiling is too low for the top of the truck (*or* is lower than the top of the truck), the truck must not be driven. / 52 Forklift trucks must be reversed up a ramp.

Section 5: Listening

53 T / 54 F / 55 F / 56 T / 57 F / 58 F / 59 F / 60 F

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

Критерии оценивания тестовых работ имеют следующие диапазоны:

менее 50% - низкий уровень;

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Итоговое тестирование

Name _____ Class _____

Technical English Test Masters Level 2 (Pre-Intermediate)

Exit Test

Sections 1 – 5 have a total of 60 marks. Try to answer all questions.

Section 6 (Speaking) has a further 20 marks.

SECTION 1: VOCABULARY

1 Choose the correct answer. Write a, b, c or d in each space.

- 1 John is studying _____ engineering at college.
a) mechanism b) mechanic c) mechanical d) mechanics
- 2 The hard drive of your computer has automatically switched off. You can _____ it again by touching any key.
a) adjust b) activate c) detect d) select
- 3 This four-wheel-drive has high _____, and as a result the rocks on the road will not damage the chassis.
a) clearance b) emission
c) cab d) consumption
- 4 The sensor on the wall _____ all changes of temperature, and switches on the alarm bell if the temperature rises above 60°C.
a) extracts b) operates c) converts d) monitors
- 5 The electrical _____ in this large factory consists of thousands of metres of cables and wires, thousands of fuses and switches and hundreds of appliances.
a) system b) device c) process d) instrument
- 6 The tail of the aeroplane has a vertical fin and two horizontal fins. These act as _____ for the plane and prevent the rear of the plane from moving around.
a) generators b) conductors c) containers d) stabilisers
- 7 As the temperature of the liquid is reduced, it _____ into a block of ice.
a) evaporates b) melts c) solidifies d) condenses
- 8 A mixture of air and petrol is sucked into the internal combustion cylinder through an opening called the _____.
a) intake valve b) exhaust port
c) intake port d) exhaust valve
- 9 If you bend an iron bar into a U shape, the outside surface of the U is under _____ as it stretches.
a) shearing b) tension c) torsion d) compression
- 10 To prevent fires from spreading in the warehouse, all shelves and counters must be made of _____ materials.
a) non-combustible b) non-portable
c) inaudible d) unbreakable
- 11 The aeroplane's forward _____ is controlled by the power of the plane's engine.
a) drag b) friction c) thrust d) lift
- 12 In modern oil drilling, a drill _____, usually made of steel and diamond, is used for breaking the rock under the surface of the earth.
a) tripod b) bit c) derrick d) pulley

SECTION 2: LANGUAGE

2 Choose the correct answer. Write a, b, c or d in each space.

- 13 Please dismantle this engine, clean all the parts carefully, and then put _____ again.
a) them together b) them c) together them d) together
- 14 The voice-activated computer works _____ recognising the pattern of a human voice.
a) for b) with c) by d) via
- 15 "Have you written your safety inspection report yet?" "No, not yet. _____ it."

- a) I now write b) I'm still writing
 c) I've written d) I'm plan to write
- 16 "What's the _____ speed for cruising, if I want to consume the least amount of fuel?"
 "About 95 km/ h is the best speed for a long journey. You'll use much less petrol."
 a) efficienter b) more efficient
 c) efficientest d) most efficient
- 17 The sub-sea engineers _____ down to the seabed tomorrow to examine the oil pipes.
 a) are will dive b) will to dive c) are diving d) will diving
- 18 The motorbikes _____ by robots, but hand-painted by craftsmen.
 a) are assembled b) assemble
 c) assembled d) are assembling
- 19 _____ you mind sending me a copy of your latest brochure, please?
 a) Shall b) When c) Are d) Would
- 20 More than 30 million working days _____ in this country last year because of staff illness.
 a) lost b) were lost
 c) were losing d) have lost
- 21 The racing driver pulled the visor down over his face _____ shield his eyes from dust and sand.
 a) for b) wanted to c) to d) for to
- 22 A digital sound metre is an instrument _____ measures sound levels digitally in decibels (dB).
 a) what b) which it c) that d) that is
- 23 In a warehouse, hand trucks must never _____ behind you if you are walking down a ramp. The truck might roll down the ramp and injure you.
 a) to pull b) be pulling c) pull d) be pulled
- 24 "What's the purpose of a police lidar system?" "It's for _____ the speed of a car."
 a) calculating b) calculation
 c) calculate d) calculator
- 25 If your mobile phone has lost its signal, why _____ using it outside the tunnel?
 a) you are not b) you don't c) don't you try d) don't you
- 26 The hydrogen fuel cell is good for the environment because it _____ only water vapour from their exhaust systems.
 a) emission b) emits c) emitter d) emissive
- 27 Management's main recommendation is that first aid should _____ to all our employees free of charge.
 a) be taught b) to teach c) teach d) have taught
- 28 "Why isn't my printer working?" "Check your printer cable. It _____ out of the computer."
 a) must be fall b) might have fallen
 c) could have fall d) may be fallen
- 29 Many cyclists use a tachometer. It monitors the rotation of the front wheel and calculates _____ moving.
 a) how is the speed b) the speed
 c) how fast it is d) how fast is it
- 30 The bridge has a deck _____ from two pylons by means of 184 cable stays.
 a) which suspended b) suspension
 c) that suspends d) suspended

SECTION 3: READING

- 3 These phrases are missing from the description of the drilling process on an oil rig. Decide where they fit. Write a letter (A – L) in each space.**

- A of long pieces of heavy pipe
- B from exploding out of the well
- C to the drill bit
- D called rotary drilling
- E of hard steel or diamond
- F have used some kind of rotary drilling
- G located directly over the well hole
- H cut through hard rock
- I as a support for the pulleys and cables
- J large diesel engines
- K 700 metres or more
- L lowering the drilling equipment into the well

Drilling an oil well (rotary drilling method)
 Modern oil rigs use a drilling method (31) _____. In this method, a hole can be (32) _____ to a depth of (33) _____ using a rotating drill bit. This idea is not new. The ancient Egyptians must (34) _____ to dig wells. Here is some of the equipment used in rotary drilling:
Power. Power for the oil rig is supplied by (35) _____. Electricity is generated on site by turbines, which are powered by the same engines.
Lifting equipment. This equipment is used for (36) _____ and raising it out again. The oil derrick is a tall tower which is (37) _____. This acts (38) _____ that lower the heavy drilling equipment into the well.
Rotating equipment. This transmits power from the engine (39) _____. The main rotating equipment is the drill string, which consists (40) _____ joined together. The lower end of the drill string is attached to the drill bit, which is made (41) _____. The upper end of the drill string is connected (via the rotary table) to the engine.
Safety system. The blowout preventer is mounted on the well casing. This prevents burning gas or oil (42) _____.

SECTION 4: WRITING

4 Complete the description of the EcoCar. Use the information in the chart.

The EcoCar: a hydrogen fuel cell car with ultra-capacitors		
43	Date of manufacture	January 2008
44	Name of designers	Eco Design Ltd
45	Power source	hydrogen fuel cell + ultra-capacitor
46	Materials	carbon fibre + aluminium (result: lightweight)
47	Acceleration	0 – 100 kph in 12 sec (compare with PetroCar: 10 sec)
48	Power for accelerating	from ultra-capacitor
49	Recharging ultra-capacitor	braking or decelerating
50	Fuel type and storage	compressed hydrogen in 150L cylinder
51	Space for luggage	extra large (because cylinder located below seats)
52	Main advantage	emission: only water vapour

- 43 The EcoCar was _____.
- 44 The car _____.
- 45 The EcoCar is _____.
- 46 The car is _____ because it is made _____.
- 47 The car can _____,
which is _____ the PetroCar.
- 48 When the driver _____, the power _____.
- 49 The ultra-capacitor is _____ by _____.
- 50 The type of fuel _____,
which _____.
- 51 The extra large luggage space is created by _____.
- 52 The main advantage of _____.

SECTION 5: LISTENING

Track 8

5 Listen twice. State whether these statements are true (T) or false (F).

Interview 1 (with the user of the SnakeBot)

- 53 The event is called the Industrial Robotics Convention. _____
 54 The user works on low-rise buildings and skyscrapers. _____
 55 The robot can be operated either by voice-activation or a joystick. _____
 56 A strength of the robot is that it can carry things like girders and pipes. _____

Interview 2 (with the user of the Rescue Robot)

- 57 The user's job title is Emergency Construction Worker. _____
 58 The robot's voice warns you when an area is too dangerous for humans. _____
 59 The robot's camera is able to detect more information than the human eye. _____
 60 One disadvantage of the robot is that it is too small and light for the job. _____

SECTION 6: SPEAKING

(61 – 80)

6 Prepare a presentation for your teacher about yourself, and about the industry you work in*. Include the following:

	About you
	– introduce yourself and your job*
	– explain your current job* and your plans for your future career
	About the industry you work in*
	– describe what your industry* does or produces
	– talk about the history of your industry*
useful	– describe some useful equipment in your industry*; explain what it does, and why it is
	– name an important process in your industry*; explain two steps in that process
	– make a prediction about the future of your industry*
	About technology in general (outside your own industry)*
future	– describe a current development in technology which you think is important for the
future	– explain why this new development is important and predict how it may affect the
	– answer a question from your teacher about this new development

**or the technology you are studying*

Your teacher will mark your talk using the scorecard below. The teacher circles 1 mark if a student includes the area and circles 2 marks for communicating it accurately and effectively. There is a maximum of twenty marks.

The student:

introduced him/herself and his/ her job/ technology appropriately		
explained his/her current job/ studies and his/ her career plans		
described the products of his/her industry/ technology		
talked about his/her industry's/ technology's history		
described useful equipment		
explained two steps in an important process		
made a prediction for the industry/ technology		
described a current technological development (outside his/ her specialism)		
explained reasons for importance of the development and its possible effects		
answered a question about the new development in technology		

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70% и более - высокий уровень.

Technical English Test Masters Level 2 (Pre-Intermediate)

Exit Test

Answer Key

Section 1: Vocabulary

1 c / 2 b / 3 a / 4 d / 5 a / 6 d / 7 c / 8 c / 9 b / 10 a / 11 c / 12 b

Section 2: Language

13 a / 14 c / 15 b / 16 d / 17 c / 18 a / 19 d / 20 b / 21 c / 22 c / 23 d / 24 a / 25 c / 26 b / 27 a / 28 b / 29 c / 30 d

Section 3: Reading

31 D / 32 H / 33 K / 34 F / 35 J / 36 L / 37 G / 38 I / 39 C / 40 A / 41 E / 42 B

Section 4: Writing

(Note: other answers are possible)

43 The EcoCar was manufactured in January 2008. / 44 The car was (*or is*) designed by Eco Design Ltd. / 45 The car is powered by a hydrogen fuel cell and an ultra-capacitor. / 46 The car is lightweight because it is made of carbon fibre and aluminium. / 47 The car can accelerate from 0 to 100 kph in 12 seconds, which is slower than the PetroCar. / 48 When the driver accelerates, the power comes from the ultra-capacitor. / 49 The ultra-capacitor is recharged by braking or decelerating. / 50 The type of fuel used by the car is compressed hydrogen, which is stored in a 150 L cylinder. / 51 The extra large space in the boot is created by locating the fuel cylinder below the seats. / 52 The main advantage of the fuel cell is that it emits only water vapour.

Section 5: Listening

53 F / 54 F / 55 T / 56 F / 57 F / 58 F / 59 T / 60 F

Section 6: Speaking

See the scorecard on the test page.

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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«Технический английский язык. Углубленный уровень (CEF A 2-B 1)»

**Входная диагностика (тестирование) для определения
общего уровня предметных знаний**

Name _____ Class _____

Выполнить тест на определение уровня: pre-intermediate или intermediate

(<https://engblog.ru/test-pre-intermediate-intermediate>)

1. The blue jacket costs \$50, the white jacket costs \$70. The blue jacket is than the white one.

cheaper

cheap

lesscheaper

2. I'd rather go out for dinner tonight thandinner at home.

have

having

tohave

3. My cousin his holidays with us next summer.

spends
is spending
was spending

4. By this time next year, Jane Spanish for two years.

is going to study
will be studying
will have been studying

5. Let's go shopping,?

let's we
shall we
do we

6. Alice won't be able to buy that car she saves some money.

unless
if
as long as

7. Rachel be in hospital; I just talked to her and she said she was at home.

mustn't
can't
won't

8. Mary works a nurse at Pillby Hospital.

such
like
as

9. John is soaking wet because he in the rain.

has been walking
will be walking
had been walking

10. If you had studied harder, you the entrance exams.

will have passed
would have passed
will be passing

11. I wish I at Mike; he's not talking to me now.

hadn't shouted
haven't shouted
didn't shout

12. I don't think there is bread left.

some
any
no

13. he is rich, he never spends any money.

Despite
Although
In spite of

14. Do you remember that film? We went to the cinema together.

see
to see
seeing

15. The authorities rebuilding the houses.

are
are being
been

16. Dogs are very loyal pets., they can guard your property.

Because

What is more

Even though

17. It's no use the hedges cut until next month.

have

tohave

having

18. Her hair is not Catherine's.

so long

as long as

long as

19. I'm not sure David lives.

where

inwhich

that

20. You me!

criticise always

are always criticising

always are criticizing

ОТВЕТЫ К ТЕСТУ:

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- **Cheaper**
- cheap
- less cheaper

2. I'd rather go out for dinner tonight thandinner at home.

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- let'swe
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 - **hadn'tshouted**
 - haven't shouted
 - didn't shout
- 12. **I don't think there is bread left.**
 - some
 - **any**
 - no
- 13. **..... he is rich, he never spends any money.**
 - Despite
 - **Although**
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 - see
 - to see
 - **seeing**
- 15. **The authorities rebuilding the houses.**
 - **are**
 - are being
 - been
- 16. **Dogs are very loyal pets., they can guard your property.**
 - Because
 - **What is more**
 - Even though
- 17. **It's no use the hedges cut until next month.**
 - have
 - to have
 - **having**
- 18. **Her hair is not Catherine's.**
 - So long
 - **As long as**
 - Long as
- 19. **I'm not sure David lives.**
 - **where**
 - in which
 - that
- 20. **You me!**
 - Criticise always
 - **Are always riticising**
 - Always are criticising

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Текущий контроль

Name _____ Class _____
Unit Test 5-8

Answer all the questions. There is one mark per question.

LANGUAGE

1 Put the verbs in brackets into the correct tense.

Sir Alexander Fleming (1) _____ (be) born in Scotland on August 6th, 1881 where he (2) _____ (go) to school until moving to London to attend the Polytechnic. After four years in a shipping office he (3) _____ (join) St. Mary's Medical School, London University. One of the most important medical advances in history (4) _____ (begin) by accident. On the morning of September 3rd, 1928, Professor Alexander Fleming (5) _____ (clear up) his untidy laboratory and (6) _____ (sort) through a number of glass plates that had previously been coated with staphylococcus bacteria as part of research he (7) _____ (do) when he (8) _____ (notice) that one of the plates (9) _____ (have) mould on it in the shape of a ring. The area around the ring (10) _____ (seem) to be free of the bacteria staphylococcus and it was this substance that he subsequently named penicillium notatum.

2 Complete the dialogue with suitable questions. Use the verbs in brackets.

A: We're currently working on a new engine design.
B: (11) _____ (work)?
A: For the last 6 months.
B: (12) _____ (make) a prototype?
A: No, we haven't. Not yet.
B: (13) _____ (finish)?
A: By the end of next month.
B: (14) _____ your team _____ (do) now?
A: They are building some of the components.
B: (15) _____ people _____ (be)?
A: There are 8 of us in the team.

3 Join the information into a single sentence using the past participle.

16 Penicillin was discovered nearly a century ago + saved countless lives
_____ 17 The
power source is located below the ruby crystal + makes the light flash on and off.
18 The photon is absorbed by the atom + creates more photons.
_____ 19 Small pockets of oil are spread over a large area + difficult to extract
_____ 20 Oil was found bubbling up to the Earth's surface + mainly used for
lighting in the past

VOCABULARY

4 Match the statement halves.

21 Let's move on _____

- 22 We can now _____
 23 As you can _____
 24 I think I've covered _____
 25 I'm now going _____
 a) see on the diagram
 b) to the next section
 c) the main points
 d) to handover to John
 e) turn to the next part

5 Choose the correct option.

- 26 A horizontal well weaves *complexly/laterally* back and forth across a number of oil-containing zones.
 27 A single snake well has the *dual/adjacent* advantage of reducing cost and ensuring no oil is overlooked.
 28/29 Archimedes principle states that a body *injected/immersed* in water experiences a buoyant force equal to the weight of the liquid *replaced/displaced*.
 30 The snake well uses a *swellable/steerable* drill which can be positioned very accurately.

Technical English Level 4 Test master
 Unit Test 5-8 Answer Key

LANGUAGE

1

1 was / 2 went / 3 joined / 4 began / 5 was clearing up / 6 (was) sorting / 7 was doing / 8 noticed / 9 had / 10 seemed

2

11 How long have you been working on it/the design? / 12 Have you made / 13 When will it be finished/When will you finish it? / 14 What is...doing now? / 15 How many people are there in the team?

3

16 Discovered nearly a century ago, penicillin has saved countless lives / 17 Located below the ruby crystal, the power source makes the light flash on and off / 18 Absorbed by the atom, the photon creates more photons / 19 Spread over a large area, small pockets of oil are difficult to extract / 20 Found bubbling up to the Earth's surface, oil was mainly used for lighting in the past

VOCABULARY

4

21b / 22 e / 23 a / 24 c / 25 d,

5

26 laterally / 27 dual / 28 immersed / 29 displaced / 30 steerable

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Unit Test 9-12

Answer all the questions. There is one mark per question.

LANGUAGE

1 Write the second sentence so that it is similar in meaning to the first sentence. Use the word given without changing it.

- 1 The leaking furnaces were because of poor maintenance.
BY
The leaking furnaces _____ poor maintenance.
- 2 The poor filtering process caused the high carbon emissions
RESULT
The high carbon emissions _____ the poor filtering process.
- 3 The weight of the molten steel makes it sink to the bottom of the cell.
CAUSES
The weight of the molten steel _____ to the bottom of the cell.
- 4 The 'blow' stage in BOS produces a lot of heat.
RESULT
A lot of heat _____ the 'blow' stage.
- 5 The mixture is passed through a filter which removes impurities.
RESULT
Impurities are removed _____ passed through the mixture.
- 6 When the solution cools down, crystals are formed.
RISE
The cooling of the solution _____ formed.
- 7 When the crystals are heated to 1100°C, they become calcinated.
IN
Heating crystals to 1100°C _____ calcination.
- 8 Poor maintenance caused the equipment breakdown.
FROM
The equipment breakdown _____ poor supervision.

2 Complete the paragraph by putting the verbs in brackets in the correct form. Use passive wherever possible.

The main material (9) _____ (use) in the Basic Oxygen Steelmaking process is hot metal. This (10) _____ (make) up 80% of the total raw material, with scrap (11) _____ (make) up the rest. The converter vessel (12) _____ (tilt) about 45° and scrap steel (13) _____ (feed) into the top of the vessel. Immediately hot metal (14) _____ (charge) directly onto the scrap steel for about one or two minutes. When the vessel (15) _____ (return) to the upright position, water-cooled oxygen lances (16) _____ (lower) into it. These special pipes pump high-purity oxygen onto the metal at very high pressure. A great amount of heat (17) _____ (generate) at this stage so the temperature (18) _____ (control) carefully. Coolant can (19) _____ (add) if the temperature needs (20) _____ (adjust).

VOCABULARY

3 Complete the sentences with words from the box.

electrolyte/aisle/slag/electrolysis/molten/flux/electrolytic/pulverised/smelted/ladle

- 21 _____ iron is another name for hot metal.
- 22 The scrap steel goes into the converter from the charging _____.
- 23 Lime is a _____ or substance which bonds with the impurities.

- 24 A _____ is used to feed the scrap into the converter.
 25 The _____ (oxidised impurities) is removed and then recycled.
 26 Bauxite has to be _____ or crushed into powder form before it can go into the digester.
 27/28 Alumina is _____ to make aluminium using the method of _____, that is, using an electrical current which creates a chemical reaction.
 29 This method is known as _____ smelting of aluminium.
 30 When using the above method to produce steel, iron oxide is inserted through a frozen _____.

Критерии оценивания имеют следующие диапазоны:

менее 50% - низкий уровень;

50%-70% - средний уровень;

70% и более - высокий уровень.

Technical English Level 4 Test master

Unit Test 9-12 Answer Key

LANGUAGE

1

1 were caused by / 2 were (as) a result of / 3 causes it to sink / 4 results from / 5 as a result of being / 6 gives rise to crystals being / 7 results in / 8 resulted from

2

9 used / 10 makes / 11 making / 12 is tilted / 13 is fed / 14 is charged / 15 is returned / 16 are lowered / 17 is generated / 18 is controlled / 19 be added / 20 to be adjusted

VOCABULARY

3

21 molten / 22 aisle / 23 flux / 24 ladle / 25 slag / 26 pulverised / 27 smelted / 28 electrolysis / 29 electrolytic / 30 electrolyte

Name _____ Class _____

Technical English Level 4

Progress Test 1 (Units 1-4)

Answer all the questions.

SECTION 1: VOCABULARY

1 Choose the correct option (a-j).

- 1 Archimedes principle states that a body immersed in a fluid experiences a _____ force equal to the weight of the liquid displaced.
 a) buoyant b) floating c) rising d) equivalent
- 2 I think I've _____ the main points. Any questions?
 a) kicked b) handed over c) covered d) turned
- 3 They use _____ packs which expand to isolate one zone from another in snake well drilling.
 a) adjustable b) swellable c) steerable d) convertible
- 4 I am now going to _____ over to my colleague to finish the presentation.
 a) kick b) turn c) cover d) hand
- 5 A single snake well can access multiple pockets of oil to achieve output _____ to several individual wells.
 a) attached b) separated c) adjacent d) equivalent
- 6 When you are drilling pockets of oil, you don't want fluid from one zone flowing into the _____ zone.

- a) adjacent b) steerable c) restricted d) coherent
- 7 Bar coding was _____ invented to help space agencies keep track of millions of spacecraft parts.
- a) frequently b) primarily c) usually d) necessarily
- 8 The _____ temperature in the room tends to be between 10-29°C so the equipment has to work within that.
- a) ambient b) solar c) apparent d) sufficient
- 9 The solar _____ of the material lets about 45% of sunlight through it.
- a) reflectancy b) acoustics c) translucency d) amplification
- 10 Furniture has to be made out of _____ material these days to prevent it from catching fire too easily.
- a) heat-reflective b) combustible c) lightweight d) non-flammable
- 11 The roof material must have good _____ protection so that it does not overheat.
- a) thermal b) solar c) light d) melting
- 12 I'm sorry, but what you're saying doesn't make any _____
- a) comment b) thoughts c) sense d) ideas
- 13 John _____ off the meeting by asking everyone to introduce themselves.
- a) opened b) kicked c) made d) worked
- 14 It's important that there are no _____ on leg movement, as they need to be able to move freely within the support.
- a) constraints b) concerns c) increments d) inclines
- 15 The measurements need to be very _____. There is zero tolerance for error.
- a) sufficient b) precise c) comparative d) concise

SECTION 2: LANGUAGE

2 Complete the paragraphs by putting the verbs in brackets into the most appropriate form and ONE word in the other gaps.

Spencer Silver (16) _____ (work) in the 3M research laboratories trying to find a new strong adhesive. Unfortunately, the adhesive he came up with was even weaker than 3M's current adhesive and no one was interested in his discovery. Then, one day, when Arthur Fry, a colleague of Silver's, (17) _____ (sing) in his church choir, the bookmarks in his hymn book kept falling out so he (18) _____ (use) some of Silver's adhesive to keep them in place. The bookmarks (19) _____ not fall out and when he found that he was (20) _____ to take them off without damaging the pages of the book, the Post It was born!

Another invention (21) _____ is used very widely today is Velcro. Most of us (22) _____ (use) this for years but probably do not know that the idea came from nature. George de Mistral (23) _____ (walk) his dog one day when he noticed burrs stuck to his clothes. They were difficult to get off so he looked at the burrs under a microscope and (24) _____ (see) that their tiny hooks had attached themselves to the loops in the material of his clothes. This started him thinking of how the substance could be used to bind two surfaces together and, although he was ridiculed initially, he persevered and finally Velcro (25) _____ (create).

/10

3 Write the second sentence so that it is similar in meaning to the first sentence. Use the word given without changing it. Use NO MORE THAN FIVE WORDS.

26 The machine has the capacity to process millions of pieces of information every second.

CAPABLE

- 27 The machine _____ millions of pieces of information every second.
They first developed the product ten years ago.
WAS

- 28 _____ ten years ago.
The drill must be able to move horizontally.

CAPACITY

- 29 The drill must _____ horizontally.
He started work here in 2000.

SINCE

- 30 He _____ 2000.

The panel of PV cells generates electrical power from the sun's rays

USED

The panel of PV cells _____ electrical power from the sun's rays.

SECTION 3: READING

4 In which paragraph (A-E) are the following mentioned?

- 31 improvement in work efficiency _____
32 government legislation _____
33 a joint venture _____
34 a dental procedure _____
35 material designed for comfort _____

A

When NASA was created back in 1958, the law decreed that any of its research and advancements should be used for the benefit of everyone and not just *those* in the space industry. As a result, there have been a vast number of spin-off products created, many of which we use daily and take for granted having no idea of *their* 'space' history.

B

One very successful product whose lineage comes from NASA, is the development of the invisible brace to straighten teeth. Until NASA developed a product called translucent polycrystalline alumina (PTA) to protect the infrared antennae of heat-seeking missile trackers, hundreds and thousands of teenagers had to put up with wearing mouthfuls of shiny metal in their mouths to position their teeth correctly. The material's strength and invisibility was found to be perfect for this piece of orthodontic equipment and is now one of the most successful products in *that* industry.

C

There is nothing better than a good night's sleep, but finding a good mattress has always been a problem until the development of memory foam. This material was developed at NASA for use in aircraft seats to reduce the impact during landing. The unique property of the material is that weight and pressure are evenly distributed and when *it* is compressed it returns to its original shape. No more sagging, lumpy mattresses that are either too hard or too soft.

D

There have been many spin-off products in the health industry but one of the smallest and most commonly used is the ear thermometer. It has revolutionised the way temperatures are taken making it both easier, quicker and more accurate. For the health businesses *this* has meant considerable time and cost-saving. It is based on a NASA infrared technology which was developed to take the temperature of stars. In the thermometer, infrared sensors are used to measure the amount of energy an eardrum gives off into the ear canal and, because this is inside the body, the reading is far more accurate than conventional thermometer types.

E

And finally, next time you are using a cordless tool around the home, you may have a little more respect for it if you know that the technology was as a result of the Apollo space

missions. When NASA was preparing for these in the 1960's, it needed to develop a drill which was lightweight, compact and very powerful so it teamed up with Black and Decker and invented a battery-powered magnet motor drill to collect samples from the surface of the moon. Black & Decker then used the same principles to develop cordless power tools for the DIY enthusiast.

5 What do these bold, italicised words refer to:

- 36 (para A) *those*
 a) advancements b) everyone c) NASA employees
- 37 (para A) *their*
 a) everyone b) products in daily use c) all spin-off products
- 38 (para B) *that*
 a) medical b) orthodontic c) space
- 39 (para C) *it*
 a) weight b) pressure c) material
- 40 (para D) *this*
 a) the way temperatures are taken b) the ear thermometer c) the health industry

SECTION 4: WRITING

6 Use the notes to write a description about the SpaceRunner.

- 41/42 Space runner/enclosed treadmill/support body weight
 43/44 capable/reduce/user's weight/max 80%
 45/46 able/provide/unrestricted motion/leg+upper body/variable speed (16kph max)
 47/48 touch button screen/control/support/change settings
 49/50 ability/function/10-29°C + humidity 20-95%

41/42 _____

43/44 _____

45/46 _____

47/48 _____

49/50 _____

SECTION 5: LISTENING

Track 2

7 Listen to the recording twice and complete the notes with ONE or TWO words.

- 51 Will is Chief Engineer for _____.
- 52 In Brunei oil is not located in one _____.
- 53 The oil pockets cover _____ of Km².
- 54/55 Company cannot afford to have lots of _____ due to costs and concerns about the _____.
- 56 Jaap comes from _____.
- 57 His inspiration came from watching his son drink a _____.
- 58 He imagined he could make a drill similar to a _____.
- 59 This would allow him to drill down first and then _____.
- 60 His new invention was a kind of _____ drill.

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Technical English Level 4
Progress Test 1-4 Answer Key

SECTION 1 – VOCABULARY

1

1 a / 2 c / 3 b / 4 d / 5 d / 6 a / 7 b / 8 a / 9 c. 10 d / 11 a / 12 c / 13 b / 14 a / 15 b

SECTION 2 – LANGUAGE

2

16 was working / 17 was singing / 18 used / 19 did / 20 able / 21 which/that / 22 have been using/have used / 23 was walking / 24 saw / 25 was created

3

26 is capable of producing / 27 The product was first developed / 28 have the capacity to move 29 has been working here since/has worked here since / 30 is used to generate

SECTION 3 READING

4

31 D / 32 A / 33 E / 34 B / 35 C

5

36 c / 37 b / 38 b / 39 c / 40 a

SECTION 4 – WRITING

6 Sample answers:

41/42 The SpaceRunner is an enclosed treadmill, which supports a person's body weight.

43/44 It is capable of reducing the user's weight by up to 80%

45/46 The machine is also able to provide unrestricted motion of the legs and upper body and runs at a variable speed of up to 16kph.

47/48 There is a touch button screen which controls the support for the body and changes the settings.

49/50 It has the ability to function in an ambient temperature of 10-29°C and a humidity of between 20-95%.

SECTION 5 – LISTENING

7

51 Drilling Operations / 52 reservoir / 53 hundreds / 54 oil platforms / 55 environment / 56 (the) Netherlands / 57 milk shake / 58 (bendy) straw / 59 horizontally / 60 flexible

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Промежуточная аттестация

Name _____ Class _____

Progress Test

Answer all the questions. There is one mark per question.

LANGUAGE

1 Complete the sentences using the words in the box

Not / by / is (x2) / been / be / of / uses / to / have / are / will / required / provide / project / pointing / consist / did / found / teaching
--

- 1 The aim of the SixthSense prototype _____ images and data about an object onto the surface of the object.
- 2 The components _____ a camera, projector and smart phone.
- 3 The system works _____ the camera at an object and gesturing with coloured finger caps.
- 4 The system _____ GPS coordinates, data from the internet and recognition of finger gestures.
- 5 In the past the device _____ live data.
- 6 Recently ways to get live data and project it outside the smart phone _____.
- 7 Currently researchers _____ the device to recognise many more gestures.
- 8 Further work _____ to reduce the size.
- 9 No doubt, in the future, the whole world _____ one interactive screen for the smart phone.

2 Choose the correct option.

(10) *Whereas/Compared* with our current model, the new touch screen we have developed has (11) *much/just* better clarity than the old one. (12) *On the other hand/While* the previous model was favourably received, our main competitor managed to take advantage of new technology and stole a large share of our market.

(13) *Compared/Instead* of having a resistive screen, they used a capacitive one, so that's what we've done in the new model. However, (14) *unlike/such as* our competitor's, our model now offers many more features.

3 Underline the extra word in each line.

- 15 The purpose of this report is about to compare two new suppliers, AMX
 - 16 and FG. They are well-established and have been doing in the business
 - 17 a long time. Both of have a good international reputation although AMX
 - 18 supplies to as many more countries than FG. The main difference seems to
 - 19 be in the price. FG are able to offer us a great bigger discount than AMX
 - 20 Deliveries are guaranteed within 24 hours just whereas AMX can only
- guarantee deliveries within 48 hours.

VOCABULARY

4 Choose the correct option.

- 21 In the past, only *static/stable* data was used.
- 22 Now it is possible to *resist/retrieve* live data.

- 23 The infrared touch screen can be protected against weather and *coatings/contaminants*.
- 24 Unfortunately the SAW touch screen can't be *squeezed/sealed* against moisture.
- 25 A new and important property is the *resilience/resistance* of the aerial, it bends but doesn't break under pressure.
- 26 Another way of *putting/doing* it is that the aerial bends without breaking.
- 27 The electric current *radiates/oscillates* at a certain speed in the length of conductive material.
- 28 The *fluidity/frequency* or speed of the vibration sends out radio waves.
- 29 In *people's/layman's* terms elasticity means that it can stretch a great deal.
- 30 The material is regenerative, that is to *tell/say*, it can repair itself.

Technical English Level 4 Test master
Progress Test Answer Key

LANGUAGE

1

1 is to project / 2 consist of / 3 by pointing / 4 uses / 5 did not provide
6 have been found / 7 are teaching / 8 is required / 9 will be

2

10 Compared / 11 much / 12 While / 13 Instead / 14 unlike

3

15 about / 16 doing / 17 of / 18 as / 19 great / 20 just

VOCABULARY

4

21 static / 22 retrieve / 23 contaminants / 24 sealed / 25 resilience / 26 putting /
27 oscillates / 28 frequency / 29 layman's / 30 say

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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Итоговое тестирование

Name _____ Class _____

Exit Test

Answer all the questions. There is one mark per question.

LANGUAGE

1 Put the verbs in brackets in the correct form.

Generally (1) _____ (think) of as a place to store things you don't want to see, warehouses (2) _____ (not have) a glamorous image. However, in today's competitive manufacturing and business environment, (3) _____ (run) the warehouse efficiently is vital to a company's success. (4) _____ (create) a critical link between a manufacturing plant and the external world, the warehouse (5) _____ (affect) the performance of the entire manufacturing and logistics system.

(6) _____ (finally install) a new system two months ago, our new warehouse
 (7) _____ (locate) near the airport, is now proving excellent, already
 (8) _____ (lower) costs by 20% and (9) _____ (improve) efficiency by 15%.
 In fact it (10) _____ (achieve) such excellent results, we are planning to install the same
 system in the other warehouses.

2 Complete the paragraph with a word or phrase from the box.

necessary/obliged/should have used/had/didn't
 have

Unfortunately we were (11) _____ to make several modifications to the materials
 used in our new product as a result of customer feedback. We (12) _____ to do this as
 quickly as possible to protect our reputation. We (13) _____ a different material from the
 start, but we were hoping to cut costs by using older technology. We found it (14) _____
 to source the material from a new supplier, but luckily we (15) _____ to make any serious
 design changes, which was good.

3 Write the second sentence so that it is similar in meaning to the first sentence. Use the word given without changing it. Use NO MORE THAN FIVE words.

16 The seawater is pumped to the top of the greenhouse and then it trickles down
 the front of the evaporator.

BEEN

_____ to the top of the greenhouse, the
 seawater then trickles down the front of evaporator.

17 It was necessary to redesign the engine.

NEED

The engine _____.

18 The rules must be followed and they didn't do that.

SUPPOSED

_____ the rules.

19 You opened the valve and that was a mistake.

SHOULD

You _____ the valve.

20 Some very quick decisions had to be made.

OBLIGED

We _____ some very quick decisions.

VOCABULARY

4 Choose words from each box to complete the sentences. Some words may be used more than once. Sometimes you will need to use more than one word from each box.

come/hang/get/go/tur	up/on/of/with/ahead/out/about/hold of
n	

21 Can you _____ a minute? I need to find the file.

22 We hope the projects _____ as successfully as we think they will.

23 I'm trying to _____ that evaluation done last month. Do you know where
 it is?

24 We had a meeting but no one could _____ a workable solution to the
 problem.

25 How did you _____ delegating the tasks? Did you choose the best person

for the job, or did you have to just use the ones that were available?

26 We want to _____ the changes as soon as possible as we need the extra capacity.

27 Several issues, which we hadn't anticipated, _____ at the meeting.

28 Could you tell me how you feel you _____ your colleagues? Do you work well together?

29 We need to _____ the supplier immediately and see if he can deliver this afternoon.

30 They couldn't _____ the project because of funding cuts.

Technical English Level 4 Test master

Exit test Answer Key

LANGUAGE

1

1 thought / 2 don't have / 3 running / 4 Creating / 5 affects / 6 having finally installed / 7 located / 8 lowering / 9 improving / 10 having achieved

2

11 obliged / 12 had / 13 should have used / 14 necessary / 15 didn't have

3

16 Having been pumped / 17 needed to be redesigned/needed redesigning / 18 They were supposed to follow / 19 shouldn't have opened / 20 were obliged to make

VOCABULARY

4

21 hang on / 22 turn out / 23 get hold of / 24 come up with / 25 go about / 26 go ahead with / 27 came up / 28 get on with / 29 get hold of / 30 go ahead with/go ahead wit

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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«Технический английский язык. Специализированный углубленный уровень (CEF B 1)»

Входная диагностика (тестирование) для определения общего уровня предметных знаний

Name _____ Class _____

Technical English Level 4 Test Master

Skills Placement Test

Complete all four sections.

SECTION 1: READING

1 Decide if the statements are True (T), False (F) or Not Given (NG)

1 Many readers have written letters to the newspaper.

2 The newspaper has consulted specialists.

3 The damage to the local region will be minimal if the oil stops leaking.

4 The local seafood industry could be damaged.

5 The main fishing grounds have been seriously affected.

6 One thousand barrels of oil are being released each day.

7 The bird population has substantially decreased since the spill.

- 8 If the spill reaches the land, many mammals will be killed.
 9 Local tourism is likely to be badly affected.
 10 One beach has already been severely damaged.

OIL SPILL

Many readers have posted comments to *The Globe Online* voicing their concerns about the recent offshore oil spill. So our reporters contacted some experts to help us assess the risks. Here are their answers to our questions.

We asked our first specialist: How serious is the oil spill for our region generally?

‘If the oil continues to leak from the well for weeks, or even months,’ he told us, ‘the effect on the area will probably be very serious indeed.’

So it’s a calamity for the region?

‘I wouldn’t say calamitous, but it is likely to be critical,’ he agreed. ‘The likelihood of severe damage is very high, I must say.’

We then spoke to another expert on oil spills, with some knowledge of the local economy. Can the seafood industry escape the worst of the damage, we wondered?

‘No, it can’t,’ he told us. ‘The spill will be disastrous for the local seafood industry if the oil reaches the main fishing grounds. And it’s virtually certain that it will spread that far. The stuff is pumping out of the well at a rate of thousands of barrels a day.’

So, it’s terrible news for the local fishing community. And what about the wider environment? Will the oil affect the bird population, for example? We asked a marine biologist for her views. She had slightly better news.

‘If the oil doesn’t reach the land but stays in the sea, there’s a possibility that the oil will do only minimal damage to the bird population,’ she said. ‘The negative effect will be quite small.’

But if it does reach the land? Here she was less hopeful.

‘Well, if it reaches the land,’ she replied, ‘there’s a chance that it will do a certain amount of damage to the seabirds there.’

We turned finally to an expert who has seen many beaches destroyed by oil slicks. If the oil hits the beaches, will it destroy our local tourism industry? His answer was surprisingly upbeat.

‘No, I don’t think so,’ he replied. ‘Even if the oil hits the land, the effect on tourism will be negligible. The damage will be virtually zero, because even in the worst case, the oil can only hit one small beach, not the other larger ones. And anyway, there’s only a slim chance that the oil will hit any beaches at all, because of its direction of flow.’

SECTION 2: WRITING

2 Complete the second sentence so that it has a similar meaning to the first sentence. Do not change the word given. You must use NO MORE THAN FIVE words, including the word given.

- 11 The pressure built up and caused the valve to blow.
 BUILD-UP

_____ caused the valve to blow.

- 12 The room flooded because of a blocked pipe.
 CAUSED

The blocked pipe _____.

- 13 How deep is the container used for smelting aluminium?
 WHAT

_____ the container used for smelting aluminium?

- 14 They started doing research in 2005.
 SINCE

They _____ 2005.

- 15 The device transmits messages back to the main computer.
USED
The device _____ messages back to the main computer.
- 16 The breakdown of the equipment resulted from poor maintenance.
DUE
The breakdown of the equipment _____ poor maintenance.
- 17 We regret that the goods were faulty.
SHOULD
The goods _____ faulty .
- 18 I think the fire started because the oven was left on.
MAY
The fire _____ because the oven was left on.
- 19 This monitor is smaller than the previous one.
AS
This monitor _____ the previous one.
- 20 We will sign the contract if you change the penalty clause.
CONDITION
We will sign the contract _____ you change the penalty clause.

SECTION 3: LISTENING

Track 1

3 Listen to the recording twice. Complete the notes below with NO MORE

THAN TWO WORDS or a NUMBER
STEPS TO PREPARE COMPONENT

- 1 Board must be (21) _____ down.
- 2 2 wire leads from (22) _____ must go through board
use (23) _____ to bend if necessary
- 3 Ensure component is (24) _____ to surface.
- 4 Turn board (25) _____
- 5 Check wires and bend (26) _____ to make them stay on board
Be careful because (27) _____ is hot.
Need to do (28) _____ simultaneously
- 6 Trim end with (29) _____
- 7 Clean board and (30) _____

SECTION 4: SPEAKING

Instructions for the teacher:

Use the following questions or discussion points to assess a student's level. Begin with questions from the advanced level questions. If the student answers effectively and confidently, choose another from the same level. As the student becomes less communicative, choose questions or discussion points from the lower level until you establish the level of questioning or discussion a student can confidently handle.

Elementary

- What's your job? What are you studying?
- Why do you need English?
- What do you do in your free time?
- Describe a useful tool or piece of equipment. What does it do?

Pre Intermediate

- How is your industry/technology changing?
- How is life changing in your country?
- What do you use the internet for? What sites do you recommend? Why?

- What job do you want to do in the future?
- Tell me about a typical day at work or college.
- How often do you attend meetings/lessons? What are they about? Are they useful?
- Tell me about three key events in your life? What happened? Why were they important?

Intermediate

- What do you do? How long have you been doing this? Why did you choose to do this? What do you hope to achieve this year? What will you have to do to succeed?
- Do you prefer working (or studying) alone or in teams? Why?
 - Tell me about a colleague/teacher? What are his/her strengths and weaknesses?
 - If you had a problem with your colleague/teacher how would you try to solve it?
 - Have you been working on a project recently? What kind of deadlines have you had?
 - How do you think your industry/technology has changed over the last ten years?
 - What do you think are the greatest innovations in the last ten years?

Advanced

- What industry do you work in?/What technology are you studying? How long have you been doing this?
- What appealed to you about this industry? How do you think your industry has affected the world we live in?
- What kind of training do you think people need if they want to work in your industry? Why?
- Tell me about a meeting you recently attended. What was it about and what were the conclusions?
- What do you think are your greatest strengths and what would you define as your weaknesses?
- What would you have done if you hadn't come into this industry?
- How do you think your industry will have changed in ten years' time?
- If you could design a new technology or piece of equipment, what would it be and why?
- How do you think the world should deal with energy supplies running out?
- What are your views on sustainability and 'green' products?

Technical English Level 4

Skills Placement Test Answer Key

With sections 1, 2 & 3 place the student according to the following scores:

Elementary level = 1-7

Pre-Intermediate level = 8-15

Intermediate = 15-22

Advanced = 23-30

SECTION 1: READING

1 F / 2 T / 3 NG / 4 T / 5 F / 6 F / 7 F / 8 NG / 9 F / 10 F

SECTION 2: WRITING

11 The build-up of pressure / 12 caused the room to flood / 13 What is the depth of/What depth is / 14 have been doing research since / 15 is used to transmit / 16 was due to / 17 should not have been / 18 may have started / 19 is not as big as / 20 on (the) condition (that)

SECTION 3: LISTENING

21 clamped / 22 transistor / 23 pliers / 24 flush / 25 upside down / 26 outwards / 27 resistor / 28 two things / 29 (wire) cutters / 30 solder

SECTION 4: SPEAKING

For placing students with this section, see 'Instructions to the teacher' on the test page.

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Текущий контроль

Name _____ Class _____

Unit Test 1-4

Answer all the questions. There is one mark per question.

LANGUAGE

1 Complete the sentences with the words in brackets in the correct form.

1 Teflon _____ (often add) to pans to provide a non-stick surface for cooking and frying.

2 Solar panels _____ (originally invent) to provide solar power for satellites.

3 Fire-proof fabrics _____ (first develop) to protect astronauts from fires on spacecraft.

4 Fireproof fabrics _____ (now commonly use) to protect fire-fighters on Earth.

5 Smoke detectors _____ (now install) in many homes.

2 There is an error in each line. Underline the error and write the correction at the end of the line.

6 Many products which we take for granted today are originally developed

7 by NASA. TV satellite dishes work better today thanks to NASA find

8 ways to correct errors in the signals come from spacecraft. The

9 technology is used to reducing noise in TV signals coming from

10 satellites. Some techniques which were developed for process space _____

11 pictures are now using to examine eyes of children to discover if they _____

12 have any vision problems. Another technology, which is developed to _____

13 detected the birth of stars, has been used to create the ear thermometer

14 using a lens which detects infrared energy for tell the temperature of _____

15 our body. Ski boots have accordion-like folds allow them to flex yet _____

still give good support and control.

3 Complete the sentences using one word from each box.

ought/needs/need/must/should	ability/capability/capable/capacity/able
------------------------------	--

16 It _____ to be _____ of reducing the user's weight by 80%.

17 It _____ have the _____ to process hundreds of thousands of pages in parallel every second.

18 The smoke detector _____ have the _____ of detecting smoke optically.

19 The equipment _____ to have both the _____ to cut into rock and to melt it.

20 We _____ to be _____ to solve problems as quickly as possible.

VOCABULARY

4 Complete the dialogue with a word from the box.

focus/sense/suggest/kick/thoughts/dead

- A: Right. We need to brainstorm some ideas for the new roofing fabric. Who'd like to (21) _____ off?
 B: Well, I'd (22) _____ that it's got to be lightweight.
 C: You're (23) _____ right. And it needs to be durable and very strong.
 A: Good, let's (24) _____ on safety for a minute. Any (25) _____ on that?
 B: It has to have a high melting point. Why don't we specify over 650° Celsius? C: Yes. That makes (26) _____.

5 Complete the sentences with a word formed from the word in capitals at the end.

- 27 The inflatable bag is totally _____ so that it can be used with people of varying weights. (ADJUST)
 28 The _____ speed variation should be 0.5 kph. (INCREMENT)
 29 Unfortunately we do not have _____ funds to make another prototype. (SUFFICE)
 30 There must be no _____ on the movement of the limbs. (CONSTRAIN)

Критерии оценивания имеют следующие диапазоны:

- менее 50% - низкий уровень;
 50%-70% - средний уровень;
 70% и более - высокий уровень.

Technical English Level 4 Test master
 Unit Test 1-4 Answer Key

LANGUAGE

- 1
 1 is often added / 2 were originally invented / 3 were first developed / 4 are commonly used / 5 are now installed
 2
 6 are = **were** / 7 find = **finding** / 8 come = **coming/which come** / 9 reducing = **reduce** / 10 process = **processing** / 11 using = **used** / 12 is = **was** / 13 detected = **detect** / 14 for = **to/ tell = telling** / 15 allow = **allowing**
 3
 16 needs/ought...capable / 17 must/should ... ability/capacity / 18 should/must... capability / 19 ought/needs... ability/capacity / 20 need/ought...able

VOCABULARY

- 4
 21 kick / 22 suggest / 23 dead / 24 focus / 25 thoughts / 26 sense
 5
 27 adjustable / 28 incremental / 29 sufficient / 30 constraint(s)

Name _____ Class _____

Answer all the questions. There is one mark per question.

LANGUAGE

1 Complete the sentences with one word from the box.

highly/definitely/virtually/possibility/doubt/likelihood/chances/unlikely
/remote

- 1 They say the _____ of an accident like this happening again in the future is minimal.
- 2 It is very _____ that the project will be finished on time so we will incur serious financial penalties.
- 3 There is no _____ that this is one of the biggest oil reserves in the world.
- 4 There is a strong _____ that the oil spill will reach the beaches.
- 5 The _____ are that there will be severe damage to the environment.
- 6 There's a _____ chance that deep water drilling will be banned, but I don't think that will happen.
- 7 It's _____ certain that flooding in the area will become much worse over the next few years.
- 8 They will _____ not be allowed to drill in the nature reserve as it is illegal.
- 9 It is _____ likely that they will have to pay huge sums of money to residents as compensation for the damage done.

2 There is an error in each line. Underline the error and write the correction at the end of the line.

10 The remote subsea equipment is about be activated and the ROV's _____
 11 are on the point of be sent down to the BOP. They will be mobilised _____
 12 at first light tomorrow. When they are being at the site of the leak, _____
 13 several attempts going to be made to activate the BOP remotely. If _____
 14 that will not work, a small cap is going to be lowered to the site _____
 15 where it will have fit exactly over the broken riser and if that fails, _____
 16 a larger cap be fitted over the small one. We're quite hopeful that _____
 17 the leak is going be completely contained by the two caps. By this time _____
 18 the two-kilometre insertion tube will have been construct so if the _____
 19 caps have been failed to stop the leak, attempts will be made to insert _____
 20 the tube into the broken riser. If that fails, the mud pump is already _____
 have been prepared so it will be ready to begin operating.

VOCABULARY

3 Complete the sentence with a word formed from the word in capitals at the end.

- 21 The oil disaster has been absolutely _____ for the area. CATASTROPHE
- 22 One specialist said the oil spill wasn't _____ but it was certainly very serious. CALAMITY
- 23 The view from the top of the mountain was truly _____. Absolutely magnificent! BREATH
- 24 The _____ of the land makes two large islands which will act as the terminal for a section of the bridge. RECLAIM
- 25 There was hardly any damage at all, in fact it was really _____.

SIGNIFY

4 Choose the correct option (a-d).

- 26 The effect of the bad publicity on tourism is _____. We noticed almost no difference at all.

- a) imminent b) negligible c) aesthetic d) severe
- 27 Oil has been pumping out of the well at a _____ of thousands of barrels every day.
- a) magnitude b) dispersion c) scale d) rate
- 28 The financial _____ of London is known as the City.
- a) cell b) terminal c) hub d) environment
- 29 Many people were _____ their concerns about the Gulf of Mexico oil spill.
- a) voicing b) saying c) speaking d) telling
- 30 The riser _____ causing the oil to leak.
- a) dispersed b) fractured c) reclaimed d) blocked

Technical English Level 4 Test master

Unit Test 5-8 Answer Key

LANGUAGE

1

1 likelihood/possibility / 2 unlikely / 3 doubt / 4 possibility/likelihood / 5 chances
6 remote / 7 virtually / 8 definitely / 9 highly

2

10 about be = about **to be** / 11 be = **being** / 12 being = **omit/delete** / 13 attempts going = attempts **are going** / 14 will = **does** / 15 have = **omit/delete** / 16 cap be = cap **will be** / 17 going be = going **to be** / 18 construct = **constructed** / 19 been = **omit/delete** /

20 is = **will**

VOCABULARY

3

21 catastrophic / 22 calamitous / 23 breathtaking / 24 reclamation / 25 insignificant

4

26 b / 27 d / 28 c / 29 a / 30 b

Критерии оценивания имеют следующие диапазоны:

менее 50% - низкий уровень;

50%-70% - средний уровень;

70% и более - высокий уровень.

Name _____ Class _____

Unit Test 9-12

Answer all the questions. There is one mark per question.

LANGUAGE

1 Rewrite the sentences in a more concise way.

1 The building, with an area of 200 square metres, is made of steel.

The _____ - _____ - _____ building is made of steel.

2 Simulations of earthquakes take place a special facility which operates on a large scale.

Earthquake _____ take place at a special _____ - _____ testing facility.

3 On the shake table, the building will be subjected to a series of simulations which increase incrementally.

On the shake table, the building will be subjected to a series of _____ - _____ simulations.

4 The simulations are recorded by video cameras which record motion.

_____ - _____ video cameras record the simulations.
 5 The structure is artificially made, is 50 metres high and will be sold next week
 The _____ - _____, _____ - _____ - _____
 structure will be sold next week.

6 The frame of the house is aluminium. It is ready to assemble and costs \$14,500.

The _____ - _____ - _____ - _____ house costs 14,500.

7 The building is made of concrete which has been reinforced and is very beautiful.

The _____ - _____ building is very beautiful.

8 The engineering project, which has been going on for a long time, aims to design economical houses which are easy to build.

The _____ - _____ engineering project aims to design economical, _____ - _____ - _____ houses.

9 The speed of the device decreases gradually which makes it very safe.

The _____ - _____ speed of the device makes it very safe to use.

10 The product, which uses a composite made of polymer and graphite, has become very popular.

The _____ - _____ - _____ product has become very popular.

2 In most lines there is an extra word. Write the extra word on the line at the end and if there is no extra word put a tick (✓)

11 The test was prepared by fabricating two of large 1 2.8-by-3-metre _____
 12 walls, using up the composite seismic wall system. One was _____
 13 reinforced and the each other was not reinforced. Several motion _____
 14 sensors were then been attached to the walls and the base to measure _____
 15 wall displacement. In addition to, a computer model of the effects of _____
 16 the Kobe earthquake on a seven-storey building which was produced _____
 17 so as that the correct force could be applied to the samples. The walls _____
 18 were then subjected to being push-over tests. First they were placed _____
 19 side by side and attached to a rigid metal base. They were then _____
 20 pushed sideways, in opposite the directions by two 100-tonne jacks. _____

VOCABULARY

3 Choose the correct option.

21 The bridge *dissipated/swayed* as too many people started walking across it.

22 The purpose of the seismic dampers is to *cushion/embed* the effects of the simulated earthquakes..

23 The *input/infill* wall is made up of brick etc.

24 To test the girders, they will have to attach *probes/pistons*.

25 What do you *deduct/deduce* from the results?

26 There are several *floors/flaws* in the beams which need to be found.

4 Complete the sentence with a word formed from the word in capitals at the end.

27 It is essentially a _____ test because the building may collapse.

DESTROY

28 Ultrasonic testing can detect the _____ and location of a problem.

PRESENT

29 The particles are _____ above the flux so the inspector is able to see quite clearly where the problem lies. MAGNET

30 The material is going to be used for impact-_____ mats for martial arts.

ABSORB.

LANGUAGE

1 1 200-square-metre / 2 simulations...large-scale / 3 incrementally-increasing /
4 motion-recording / 5 artificially/man-made...50-metre-high / 6 aluminium-framed,
ready to assemble / 7 reinforced-concrete / 8 long-term...easy-to-build / 9 gradually decreasing /
10 polymer-graphite-composite

2 11 of / 12 up / 13 each / 14 been / 15 to / 16 which / 17 as / 18 being / 19 ✓ / 20 the

VOCABULARY

3 21 swayed / 22 cushion / 23 infill / 24 probes / 25 deduce / 26 flaws

4 27 destructive / 28 presence / 29 magnetised / 30 absorbent

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

Критерии оценивания тестовых работ имеют следующие диапазоны:

менее 50% - низкий уровень;

50%-70% - средний уровень;

70% и более - высокий уровень.

Промежуточная аттестация

Name _____ Class _____

Technical English Level 4

Progress Test 4 (Units 7-8)

SECTION 1: VOCABULARY

1 Choose the correct option (a-d).

1 We think the items were stolen _____ to the picking stage.

a) beforehand b) previous c) prior d) smallest

2 A lot of _____ data, that is personal information, is lost when staff lose their phones.

a) sensible b) sensitive c) sensory d) sensing

3 We need to have a system that can _____ the data if a phone is lost. We don't want company and personal information being stolen.

a) wipe b) contact c) pre-set d) overlay

4 The security system allows the administrator to send an _____ SMS message to delete the important data.

a) encrypted b) out-of-contact c) interrupted d) ambient

5 The _____ and crossbones sign indicates that a substance is toxic.

a) head b) face c) skull d) body

6 An infrared touch screen can be sealed against _____ .

a) coatings b) resistance c) security d) contaminants

7 The _____ of a substance is its ability to bend without breaking.

a) resistance b) resilience c) resolution d) radiation

8 The engineer agreed to some _____ that the problem could be a design fault.

a) point b) doubt c) level d) extent

9 On the _____, I think you're completely wrong.

a) contrary b) opposite c) reverse d) contradiction

2 Complete the sentences with a word formed from the word in capitals at the end.

10 We need to make sure that no _____ user has seen that data. It would be disastrous for the company. **AUTHORITY**

11 The screen has several _____ layers. **METAL**

12 They found an alloy with high _____ which was just right for the task.

FLUID

13 The _____ of the voice on this phone is truly excellent. **CLEAR**

14 The _____ of some substances can cause a problem when transporting them so they carry a warning sign. **STABLE**

15 Can you explain the _____ between the two systems please? **SIMILAR**

/5

SECTION 2: LANGUAGE

3 Put the verbs in brackets into the correct form and ONE word only in the other gaps.

FACTORY THEFTS

Last night several expensive components (16) _____ (steal) from our factory. Now we think that they must (17) _____ (take) by someone inside the company, as there was no sign of a break-in. Recently we (18) _____ (have) a series of small thefts but, (19) _____ with these, last night's was much (20) _____ serious as it included the prototype for our new product.

We need (21) _____ (identify) weaknesses in our security. Could these thefts (22) _____ (prevent)? (23) _____ have we gone wrong? Perhaps we (24) _____ (not/train) our staff carefully enough. So what (25) _____ we have done to prevent this situation? It seems that currently too many people

(26) _____ (have) access to the door codes, (27) _____ in the past only the production manager and his assistant had them. So perhaps we should start by (28) _____ (reduce) the number of people who are allowed to know the code. In my opinion, the production manager should be totally responsible for access to the factory and for checking that everything is locked when he (29) _____ (leave). I know that many of the staff will no (30) _____ complain vehemently so we must explain to them why we are taking this action.

SECTION 3: READING

4 Read the text and decide if these statements are True (T), False (F) or Not Given (NG)

31 Augmented reality research started more than a decade ago.

32 Aircraft maintenance used some of the first augmented reality technology.

33 Mobile phone companies are doing all the current research.

34 Virtual reality consists of real and virtual objects.

35 Advertisers want to keep in touch with consumers at all times.

36 Teenagers enjoy learning through video games.

37 Phones could be used by school children to do some assignments.

5 Choose the correct option (a-d)

38 Which of these general applications is not mentioned?

- a) locating a vehicle
- b) finding food and drink establishments
- c) studying the stars
- d) car maintenance manuals

39 Which of these educational applications is not mentioned?

- a) learning to read
- b) doing physics and chemistry experiments

- c) studying geography
 - d) doing economic projects
- 40 Which future application is mentioned?
- a) furnishing an augmented reality room
 - b) working outside the computer screen
 - c) playing vide games in a virtual environment
 - d) improving vision for people who wear glasses

AUGMENTED REALITY

Active research into augmented reality has been going on for more than ten years but it isn't until recently that the technology has made it possible for extensive use. One of the earliest forms of the technology was for aircraft maintenance, where a schematic on a display was overlaid onto aircraft wire harnesses which were being repaired. This saved the technicians having to look away at the instruction manuals all the time. In the early days, researchers had to carry backpacks of equipment to make it work, but now mobile phones and laptops are so powerful that they can be used and have therefore made the technology much more of a commercial prospect. And the mobile phone is currently driving the development.

Augmented reality technology works by superimposing graphics, audio and other sensory enhancements over a real-world environment in real time. Taking the elements from TV and computer screens, it allows the user to see the world in a different way. It is in fact a hyper-environment, a tri-dimensional and interactive environment generated by computer and made up of real objects and virtual objects iPhone apps have led the way, although all major phone manufacturers are now involved. One of their apps is an instant English/Spanish translator which works by holding the phone's camera up to a sign in either of those languages. Other popular apps involve astronomy, measuring distances, a theodolite, finding your car and of course the ubiquitous guides to restaurants and bars. Developed in the Netherlands, Layar is very popular application which uses your phone's camera and GPS to gather information about the surrounding area. It then shows information about restaurants and other sites, which is overlays on the phone screen. One new application is a pair of goggles for skiers, which tell them in real time how fast they are going as well as the time and the temperature. Advertisers have seen the potential of this technology as it allows them to reach consumers closer to their merchandise and send them information about the product they are looking at. Furthermore it also has many applications in the medical industry from training doctors to performing surgery.

It has benefits for education too. A science teacher could build 3D images and simulations for the class instead of having to use 2D static diagrams. One application currently on the market helps primary school children learn their alphabet. For example for the letter G, a giraffe can appear in the child's hands, moving, making noises and responding to the child. By pressing a few buttons the child can also hear the letter sounds and generally have fun. Many educational experts are looking at the benefits of an augmented reality curriculum. One advantage is that with disillusioned teenagers it seems to engage them more, but on the other hand they can also be overloaded with information, which rather defeats the object. Educationalists are working to establish a balanced use of the new technology. However youngsters could use their phones to collect data from communities for social studies projects, from shopping centres to understand economics and from museums to learn more about the exhibits.

Augmented reality is here to stay and its future is exciting. There is likely to come a time when we are no longer limited to our computer screens, but will be able to use glasses to view the screen icons in the air around the computer. We could have virtual objects like paintings on our walls paying a fraction of the cost of the original painting. As far as video games are concerned, players will be able to run around outside, without being confined to buttons and joysticks and they may, one day, even be able to enter gamespace with other people in this way. The applications seems endless.

SECTION 4: WRITING

6 Use the notes to write a comparison of two new smart phones.

SPECIFICATIONS	PHONE A	PHONE B
(41/42) Screen	Very good/dense ppi ratio	Good/not brilliant
(43/44) Battery life	Excellent	Good
(45/46) Email	Immediate automatic download	Checks every 30 minutes/not efficient
(47/48) Sound quality	Very good	Excellent
(49/50) Value for money	\$800/Very expensive	\$400/Good value

41/42 _____

 43/44 _____

 45/46 _____

 47/48 _____

 49/50 _____

SECTION 5: LISTENING

Track 5

7 Listen to the recording twice and complete the notes using one or two words.

- 51 Aerials are often made of _____.
- 52 Properties of new technology: (a) resilience (b) _____
- 53 Aerial doesn't break when _____ forces are applied to it.
- 54 Bends in the same way a _____ does in strong wind.
- 55 Signals transmitted by electrical currents _____ in conductive material.
- 56 Radio or _____ waves sent out in all directions.
- 57 Metal has to be soft at _____.
- 58 The alloy of gallium and indium can flow into a new shape because it is _____
- 59 Aerial can stretch in the same way as an _____.
- 60 Tuning occurs by altering the _____ of the aerial.

/10

Technical English Level 4
 Progress Test 4 Answer Key

SECTION 1 – VOCABULARY

- 1**
- 1 c / 2 b / 3 a / 4 a / 5 c / 6 d / 7 b / 8 d / 9 a
- 2**
- 10 unauthorised / 11 metallic / 12 fluidity / 13 clarity / 14 instability / 15 similarity

SECTION 2 – LANGUAGE

- 3**
- 16 were stolen / 17 have been taken / 18 have had / 19 compared / 20 more / 21 to identify / 22 have been prevented / 23 Where / 24 haven't trained/didn't train / 25 could / 26 have / 27 whereas/while / 28 reducing / 29 leaves / 30 doubt

SECTION 3 READING

- 4**
- 31 T / 32 T / 33 NG / 34 F / 35 T / 36 NG / 37 T
- 5**
- 38 d / 39 c / 40 b

SECTION 4 – WRITING

6 Sample answers:

41/42 Phone A has a very good screen with a dense ppi ratio whereas the screen on phone B is not as good.

43/44 The battery life of phone A is considerably better than that of phone B.

45/46 Furthermore the email system on phone B is much less efficient as it only checks every 30 minutes rather than downloading email immediately when they arrive as on phone A.

47/48 The sound quality of phone A is not quite as good as that of phone B which is rated as excellent.

49/50 With regard to value for money, phone B is definitely the best value being half the price of phone A. You get similar features, by not necessarily the quality.

SECTION 5 – LISTENING

7

51 copper / 52 regenerative capability (self-repair) / 53 deforming / 54 palm tree / 55 oscillating / 56 magnetic / 57 room temperature / 58 liquid / 59 elastic band / 60 length

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

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70% и более - высокий уровень.

Итоговое тестирование

Name _____ Class _____

Technical English Level 4 Test Master

Exit Test

Sections 1 – 5 have a total of 60 marks. Try to answer all questions.

Section 6 (Speaking) has a further 20 marks.

SECTION 1: VOCABULARY

1 Choose the correct option.

- 1 If you _____ this material in water, it will dissolve.
a) interact b) immerse c) absorb d) interrupt
- 2 I'm afraid it seems that the pipe has _____ and that's what caused the leak.
a) corrupted b) corroded c) counteracted d) corrected
- 3 The manager _____ off the meeting by asking for our ideas.
a) hit b) sounded c) debated d) kicked
- 4 The speed of the machine increases by _____ of 0.25 kph.
a) increments b) percentages c) modifications d) transformations
- 5 The _____ pipe from the container was blocked so the water couldn't escape and the room flooded.
a) inlet b) output c) overflow d) down thrust
- 6 The _____ of the vehicle was excellent: 0-100kph in 3 seconds.
a) deceleration b) speed c) activation d) acceleration
- 7 When testing some vehicles the drivers have to _____ control of the vehicle to the computer. That can be quite frightening if you are not used to it.
a) restrain b) relinquish c) regain d) relieve
- 8 In order to build the bridge, the company had to _____ quite a bit of land from the sea.
a) disperse b) return c) construct d) reclaim
- 9 When dealing with oil spills, surface _____ is often the first option.
a) conduction b) containment c) contraction d) contaminant

- 10 Are you _____ to use the new system?
a) authorised b) confirmed c) computerised d) clarified

2 Complete the sentence with a word formed from the word in capitals at the end.

- 11 The warning sign indicates that this substance is _____, so we must handle it carefully. FLAME
12 The company apologised for any _____ caused by the shutdown of the factory. CONVENIENT
13 This is a _____ network, so it can be added to all the time. SCALE
14 The job was extremely _____ as we were working at heights of 250 metres. HAZARD
15 The _____ flaws are always difficult to detect. LINE

SECTION 2: LANGUAGE

3 Write the second sentence so that it is similar in meaning to the first sentence. Use the word given without changing it. Use NO MORE THAN SIX words

- 16 You give us a discount and then we'll place an order.
LONG
We'll place an order _____ a discount.
17 I believe the fire was started deliberately. A petrol can was found at the site.
MUST

The fire _____y as a petrol can was found at the site.

- 18 The test facility is in a beautiful location as it lies between two hills.
SITUATED
_____, the test facility is in a beautiful location.

- 19 The door wasn't locked so the thief got into the room easily.
HAVE

If the room had been locked, the thief _____
_____ into the room so easily.

- 20 I became the CEO a year ago.
FOR
I _____ a year.

- 21 The prototype was being tested when the accident happened.
WHILE
_____, the accident happened.

- 22 The machine can run non-stop for a year.
CAPACITY
The machine _____ non-stop for a year.

- 23 Even if you don't agree, we are going ahead with the project.
REGARDLESS
We are going ahead with the project _____ or not.

4 Complete the paragraph with ONE word only in each gap.

KT Engineering has recently moved to a new manufacturing facility (24) _____ more manufacturing capabilities can be added and the offices expanded. The new location (25) _____ provide access to a larger employment base and, (26) _____ closer to the motorways and airports, will improve our distribution efficiency. (27) _____ the new facility is only 20 miles away (28) _____ the previous one, all current employees have remained with the company. (29) _____ the company hadn't made the move, it would have been in danger of being overtaken by its major competitor, who had just set (30) _____ a new operation in the area.

SECTION 3: READING

5 Read the text below and complete the notes.

- 31 depth of magnet underground: _____
32 length of magnets: _____
33 length of beam tube: _____
34 magnet temperature required for repair: _____

How the damage to the LHC was repaired

First, before any repair work could begin, the magnets had to be heated up from their low temperatures at absolute zero to room temperature. The warm-up process took about a month.

The next step was to isolate the magnets from one other. This was done by opening up the interconnections between each faulty magnet and its neighbours.

Next, each damaged magnet was lifted up to the surface. The magnets are 15 metres long and weigh 20–30 tonnes. They had to be raised approximately 100 metres up a shaft to ground level, while being kept perfectly parallel to the floor.

The damaged magnets were then inspected at a nearby above-ground site. Following this check-up, essential repairs were carried out on a total of 205 electrical interconnections.

At the same time, over 4 km of beam tube – the pipe which carries the beam of sub-atomic particles through the magnets – had to undergo a complete clean-out following the incident. This was done by pulling a large pad dipped in alcohol along the inside of the tube.

A restraint system was fitted to the magnets to tie them down and prevent them from being thrown off their supports in future.

Hundreds of helium pressure release valves were also installed around each magnet to prevent any build-up of pressure in the future.

After repairs, the magnets were taken back to their original locations, and then lowered carefully into position between their neighbours.

Once the magnets were in place, the electrical cables between them were connected up. The connections were coated in copper, which was then heated under pressure to solder the parts together.

Finally, all the magnets were connected up and tested, and the temperature was brought down again to absolute zero.

As for the future, to prevent such accidents from happening again, the whole meltdown warning system was given a major upgrade.

Hundreds of new detectors were installed around the magnets to constantly monitor the status of the interconnections and initiate an automatic shutdown of power to the magnets in case of any problem.

6 Complete the summary paragraph with words from the box. There are more words than you need.

fixed/checked/warmed/upgraded/lowered/separated/undertaken/carried/shut down/brought up

Before repair work can start, the magnets have to be (35) _____. Then they are (36) _____ and lifted to the surface where they are (37) _____ carefully and essential repairs (38) _____. The beam tube must be thoroughly cleaned with a pad soaked in alcohol and then the magnets (39) _____ to their supports so they are not thrown off in future. Once they have all been reconnected, tested and the temperature (40) _____ again, they can be returned to their positions.

SECTION 4: WRITING

7 You have been asked to write a summary report about the bridge your company has designed and plans to build across a harbour. Use these notes to help you.

41/42 by road 60Km/3-4 hours depending on time of day

43/44 ferries don't take vehicles/ vulnerable in typhoon season

45/46 new bridge stylish/visually attractive/add to view

47/48 environmental concerns/marine ecosystem (white dolphins)/pollution/potential chemical spillage

49/50 solutions: area set aside for dolphins/contingency plan for chemical spillages

HARBOUR BRIDGE – SUMMARY REPORT

41/42 _____

43/44 _____

45/46 _____

47/48 _____

49/50 _____

Section 5: Listening

Track 8

8 Listen to the recording twice and complete the notes. Use NO MORE THAN TWO words and/or numbers for each gap

ALUMINIUM SMELTING

Method: Electrolysis = (51) _____ created by electrical current.

Equipment: Smelting (52) _____ i.e. huge container.

(53) _____ layer at bottom of container with (54) _____ below the layer.

Carbon anode suspended from top of container.

Stages:(55) _____ put into container from hopper.



Pushed through (56) _____ electrolyte layer to form (57) _____ on surface.



Dissolved in molten electrolyte.



Electric current flows through all layers.



Temperature reaches (58) _____ Celsius.



(59)aluminium sinks to bottom of container.



Aluminium is then (60) _____ and ready for casting

SECTION 6: SPEAKING

9 Prepare a presentation to your teacher about yourself and the industry you work in *. Include the following:

- introduce yourself and describe your current job*
- say why you chose this job*
- say what you have been doing for the past 2 years
- explain what particular health and safety procedures are in place in your industry*

- describe a crisis situation which has occurred in your own industry*
- give details of the procedures used to deal with the crisis
- explain what you would have done if you had been involved in the situation
- outline the training you got for your job* or the training you expect to receive in your industry*
- describe how you think jobs in your industry* will have changed in ten years' time
- answer a question from your teacher about your talk

* or the technology you are studying

Your teacher will mark your presentation using the scorecard below. The teacher circles 1 mark if a student includes the area, and circles 2 marks for communicating it accurately and effectively. There is a maximum of twenty marks.

The students

introduced themselves and described their job	1	2
said why they chose that job	1	2
said what they had been doing the past 2 years	1	2
explained health and safety procedures in their industry	1	2
described a crisis situation in their industry	1	2
gave details of procedures used to deal with the crisis	1	2
explained what they would have done in that situation	1	2
outlined training required for job/or industry	1	2
described how jobs will have changed in industry	1	2
answered a question from the teacher	1	2

Критерии оценивания имеют следующие диапазоны:

менее 50% - низкий уровень;

50%-70% - средний уровень;

70% и более - высокий уровень.

Technical English Level 4

Exit Test Answer Key

Section 1: Vocabulary

1

1 b / 2 b / 3 d / 4 a / 5 c / 6 d / 7 b / 8 d / 9 b / 10 a

2

11 (in)flammable / 12 inconvenience / 13 scalable / 14 hazardous / 15 linear

SECTION 2: LANGUAGE

3

16 as/so long as you give us / 17 must have been started / 18 Situated between two hills / 19 wouldn't have got/wouldn't have been able to get / 20 have been the CEO for / 21 While the prototype was being tested / 22 has the capacity to run / 23 regardless of whether you agree

4

24 where / 25 will/can/should / 26 being / 27 As / 28 from / 29 If / 30 up

SECTION 3: READING

5

31 100m / 32 15m / 33 4Km+/more than 4Km/over 4Km / 34 room (temperature)

6

35 warmed / 36 separated / 37 checked / 38 undertaken / 39 fixed / 40 lowered

SECTION 4: WRITING

7

41/42 The current journey by road around the harbour is 60Km and can take between three to four hours, depending on the time of day.

43/44 The ferries which run do not carry any vehicles and also they are vulnerable in the

typhoon season.

45/46 The new bridge we have designed is both stylish and visually attractive and we believe that it will add the harbour views.

47/48 However, we are aware that there have been some environmental concerns mainly with the marine ecosystem as this is one of the only places in the world with a white dolphin population. Furthermore, there are worries about the possibility of chemical spillages.

49/50 As a result of these concerns we have come up with some solutions. Firstly we have put forward proposals to set aside a special area for the dolphins and we have also created a contingency plan in the unlikely event that there is a chemical spillage

SECTION 5: LISTENING

8

51 chemical reaction / 52 pot / 53 carbon (block) / 54 iron bar / 55 alumina powder / 56 frozen / 57 hard crust / 58 950° / 59 (pure) molten / 60 tapped

SECTION 6: SPEAKING

9

For scoring, see the instruction on the test page.

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

Критерии оценивания тестовых работ имеют следующие диапазоны:

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**«Технический английский язык. Специализированный уровень:
Информационные технологии и основы машиностроения
(CEF B 1)»**

**Входная диагностика (тестирование) для определения
общего уровня предметных знаний**

Name _____ Class _____

Выполнить тест на определение уровня: pre-intermediate или intermediate
(<https://engblog.ru/test-pre-intermediate-intermediate>)

21. The blue jacket costs \$50, the white jacket costs \$70. The blue jacket is than the white one.

cheaper

cheap

lesscheaper

22. I'd rather go out for dinner tonight thandinner at home.

have

having

tohave

23. My cousin his holidays with us next summer.

spends

is spending

was spending

24. By this time next year, Jane Spanishfortwoyears.

is going to study

will be studying

will have been studying

25. Let's go shopping,?

let's we
shall we
do we

26. Alice won't be able to buy that car she saves some money.

unless
if
as long as

27. Rachel be in hospital; I just talked to her and she said she was at home.

mustn't
can't
won't

28. Mary works a nurse at Pillby Hospital.

such
like
as

29. John is soaking wet because he in the rain.

has been walking
will be walking
had been walking

30. If you had studied harder, you the entrance exams.

will have passed
would have passed
will be passing

31. I wish I at Mike; he's not talking to me now.

hadn't shouted
haven't shouted
didn't shout

32. I don't think there is bread left.

some
any
no

33. he is rich, he never spends any money.

Despite
Although
In spite of

34. Do you remember that film? We went to the cinema together.

see
to see
seeing

35. The authorities rebuilding the houses.

are
are being
been

36. Dogs are very loyal pets., they can guard your property.

Because
What is more
Even though

37. It's no use the hedges cut until next month.

have
to have
having

38. Her hair is not Catherine's.

- so long
- as long as
- long as

39. I'm not sure David lives.

- where
- inwhich
- that

40. You me!

- criticise always
- are always criticising
- always are criticizing

ОТВЕТЫ К ТЕСТУ:

21. The blue jacket costs \$50, the white jacket costs \$70. The blue jacket is than the white one.

- **Cheaper**
- cheap
- less cheaper

22. I'd rather go out for dinner tonight thandinner at home.

- **have**
- having
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23. My cousin his holidays with us next summer.

- spends
- **is spending**
- was spending

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- Is going to study
- will be studying
- **will have been studying**

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- dowe

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 - **hadn'tshouted**
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 - some
 - **any**
 - no
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 - Despite
 - **Although**
 - In spite of
- 34. **Do you remember that film? We went to the cinema together.**
 - see
 - to see
 - **seeing**
- 35. **The authorities rebuilding the houses.**
 - **are**
 - are being
 - been
- 36. **Dogs are very loyal pets., they can guard your property.**
 - Because
 - **What is more**
 - Even though
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 - Long as
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 - **where**
 - in which
 - that
- 40. **You me!**
 - Criticise always
 - **Are always riticising**
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Текущий контроль

Name _____ Class _____

Unit Test 1-4

Answer all the questions. There is one mark per question.

LANGUAGE

1 Complete the paragraph with words from the box.

however/nevertheless/while/whereas/but/although

(1) _____ companies spend millions on research and development, many products are still recalled. (2) _____ there are many reasons for these recalls, the majority of them are due to safety. (3) _____ careful manufacturers are, defective designs still manage to get to the market. Retailers are on the front line dealing with customer complaints (4) _____ it is the manufacturer who has to act quickly and decide to recall a product. In the past it was more difficult to get information to consumers quickly (5) _____ today, with the internet, consumers are often the first to know about product faults, even before the product has been recalled. A rapid response by the manufacturer can save a company's reputation and put consumers' minds to rest. (6) _____, repairing the consumers' perception and confidence is not easy.

2 Complete the paragraph by putting the words in brackets in the correct form.

It (7) _____ (seem) that there are a few problems with some of our aircraft engines at the moment, so we (8) _____ (inform) all our clients that they (9) _____ (recall). This (10) _____ (mean) that many planes (11) _____ (ground) at the moment, (12) _____ (cause) some disruption to the airline industry. We (13) _____ (do) our best to make sure the problem (14) _____ (deal) with as quickly as possible. At the moment our CEO (15) _____ (speak) at a press conference to try to allay fears. He (16) _____ (assure) our clients and the public that any planes which (17) _____ (use) these engines are perfectly safe but that there could be a potential problem if nothing (18) _____ (do) immediately. Our engineers (19) _____ (work) on a solution which should be ready in a few days. Our clients services department (20) _____ (take) calls from concerned clients.

VOCABULARY

3 Choose the correct option.

- 21 The braking system gave me a bad *rumble/scare* when it didn't react immediately when I put my foot on the brake
- 22 There is a *possibility/precaution* that some products may overheat.
- 23 In very rare *possibilities/instances*, consumers may get burnt.
- 24 We apologise for any *cases/inconvenience* caused to our customers.
- 25 In the *isolated/unlikely* event that this happens, switch off the machine immediately.
- 26 When braking lightly, the *actuator/deceleration* of the vehicle is provided by the resistance of the electric motor.
- 27 The computer programme *interprets/overrides* the input data and is then able to send instructions to the braking system.
- 28 On autopilot, the details of the flight are first *regained/established* by the pilot.
- 29 The pilot or driver can take control of the plane or vehicle by *overriding/relinquishing* the automatic pilot or cruise control
- 30 Pilots use *accelerator/throttle* levers to control the speed of the aircraft.

Technical English Level 4 Test master
Unit Test 1-4 Answer Key

LANGUAGE

1

1 Although / 2 While / 3 However / 4 but / 5 whereas / 6 Nevertheless

2

7 seems / 8 are informing/have informed / 9 are being recalled / 10 means
11 are grounded / 12 causing / 13 are doing / 14 is dealt / 15 is speaking / 16 is assuring
17 use/are using / 18 is done / 19 are working / 20 is taking

VOCABULARY

3

21 scare / 22 possibility / 23 instances / 24 inconvenience / 25 unlikely / 26 deceleration
27 interprets / 28 established / 29 overriding / 30 throttle

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70% и более - высокий уровень.

Name _____ Class _____

Unit Test 5-8

LANGUAGE

**1 Write the second sentence so that it is similar in meaning to the first sentence(s).
Use one of the modal verbs from the box.**

should/ought to/can't/may/might/shouldn't/must

- 1 It's virtually certain that the system failed due to poor maintenance.
The system _____
- 2 We regret that the accident happened.
The accident _____
- 3 They didn't lock the doors securely, this was a mistake.
The doors _____
- 4 I don't believe the order was lost.
The order _____
- 5 It's possible that faulty brakes caused the accident.
Faulty brakes _____
- 6 You didn't inspect the system last night. That was wrong.
You _____
- 7 The password wasn't changed last night. It's your job to do that.
The password _____
- 8 We're not sure, but we think a gas leak caused the fire.
The fire _____

2 Read the paragraph and then write the questions which give the answers shown.

It seems that three cartons were taken from one of the pallets. We know this because the plastic shrink-wrap film was torn. However, there were no signs of a break-in so it must be someone from the warehouse. We are going to review all the CCTV footage in the relevant areas and won't inform the police until we've got more information. As soon as staff have been interviewed, we'll issue a press statement.

- 9 _____?
Three.
- 10 _____?

Because the plastic shrink-wrap film was torn.

11 _____ ?
No, none.

12 _____ ?
Review the CCTV footage.

13 _____ ?
No, we won't. Not until we have more information.

14 _____ ?
As soon as staff have been interviewed.

3 Rewrite the sentences correctly

15 The manager wants to know why hadn't been the security checks done.

16 He is determined to find out what did cause the failure.

17 The company needs to know how many people involved in the incident were.

18 The manager didn't know who the authorised user of the stolen phone.

19 They needed to discover could they wipe the company data remotely.

20 His boss wanted to know where used last the manager his phone.

VOCABULARY

4 Complete the sentence with a word formed from the word in capitals at the end.

21 Some materials are particularly _____ and must be clearly labelled as such. HAZARD

22 Some substances are extremely _____ and will have a double number against them on the HazMat warning panel. CORRODE

23 Companies need to be very careful when dealing with _____ data.

SENSE

24 The skull and crossbones sign indicates the _____ of a material. TOXIC

5 Complete the dialogue with phrases from the box.

definitely not/absolutely/up to a point/on the contrary/yes and no/in fact
--

A: I think we can all agree that we should use the LOCKDATA system. Do you agree?

B: Well only (25) _____. However there are some issues we still haven't discussed.

A: (26) _____. I think we've discussed them all.

B: (27) _____. We haven't talked about who is going to be our security administrator. (28) _____, this person will have total control over our mobile systems.

A: (29) _____. That's the whole point.

B: Yes, but who is going to have that responsibility.

A: Our IT director of course. Without a doubt he's the right person for the job, don't you think?

B: (30) _____. There are some issues which we need to discuss on that

point.

Unit Test 5-8 Answer Key

LANGUAGE

1 1 must have failed due to poor maintenance / 2 should not have happened /
3 ought to/should have been securely locked / 4 can't have been lost / 5 may/might have
caused the accident / 6 ought to/should have inspected the system last night / 7 ought to/should
have been changed last night / 8 may/might have been caused by a gas leak

2 9 How many cartons were taken?/ 10 How do you know this?/ 11 Were there any signs
of a break-in?/ 12 What are you going to do next?/ 13 Will you inform the police now?/
14 When will you issue a press statement?

3 15 The manager wants to know why the security checks hadn't been done.
16 He is determined to find out what caused the failure.
17 The company needs to know how many people were involved in the accident.
18 The manager didn't know who the authorised user of the stolen phone was.
19 They needed to discover if they could wipe the data remotely.
20 His boss wanted to know where the manager last used his phone.

VOCABULARY

4 21 hazardous / 22 corrosive / 23 sensitive / 24 toxicity

5 25 up to a point / 26 On the contrary / 27 Definitely not / 28 In fact / 29 Absolutely
30 Yes and no

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Name _____ Class _____

Unit Test 9-12

Answer all the questions. There is one mark per question.

LANGUAGE

1 Put the verbs in brackets in the correct form.

Generally (1) _____ (think) of as a place to store things you don't want to see,
warehouses (2) _____ (not have) a glamorous image. However, in today's competitive
manufacturing and business environment, (3) _____ (run) the warehouse efficiently is vital
to a company's success. (4) _____ (create) a critical link between a manufacturing plant
and the external world, the warehouse (5) _____ (affect) the performance of the entire
manufacturing and logistics system.

(6) _____ (finally install) a new system two months ago, our new warehouse

(7) _____ (locate) near the airport, is now proving excellent, already

(8) _____ (lower) costs by 20% and (9) _____ (improve) efficiency by 15%.

In fact it (10) _____ (achieve) such excellent results, we are planning to install the same
system in the other warehouses.

2 Complete the paragraph with a word or phrase from the box.

necessary/obliged/should have used/had/didn't have
--

Unfortunately we were (11) _____ to make several modifications to the materials used in our new product as a result of customer feedback. We (12) _____ to do this as quickly as possible to protect our reputation. We (13) _____ a different material from the start, but we were hoping to cut costs by using older technology. We found it (14) _____ to source the material from a new supplier, but luckily we (15) _____ to make any serious design changes, which was good.

3 Write the second sentence so that it is similar in meaning to the first sentence. Use the word given without changing it. Use NO MORE THAN FIVE words.

16 The seawater is pumped to the top of the greenhouse and then it trickles down the front of the evaporator.

BEEN

_____ to the top of the greenhouse, the seawater then trickles down the front of evaporator.

17 It was necessary to redesign the engine.

NEED

The engine _____.

18 The rules must be followed and they didn't do that.

SUPPOSED

_____ the rules.

19 You opened the valve and that was a mistake.

SHOULD

You _____ the valve.

20 Some very quick decisions had to be made.

OBLIGED

We _____ some very quick decisions.

VOCABULARY

4 Choose words from each box to complete the sentences. Some words may be used more than once. Sometimes you will need to use more than one word from each box.

come/hang/get/go/tur n	up/on/of/with/ahead/out/about/hold of
---------------------------	---------------------------------------

21 Can you _____ a minute? I need to find the file.

22 We hope the projects _____ as successfully as we think they will.

23 I'm trying to _____ that evaluation done last month. Do you know where it is?

24 We had a meeting but no one could _____ a workable solution to the problem.

25 How did you _____ delegating the tasks? Did you choose the best person for the job, or did you have to just use the ones that were available?

26 We want to _____ the changes as soon as possible as we need the extra capacity.

27 Several issues, which we hadn't anticipated, _____ at the meeting.

28 Could you tell me how you feel you _____ your colleagues? Do you work well together?

29 We need to _____ the supplier immediately and see if he can deliver this afternoon.

30 They couldn't _____ the project because of funding cuts.

Technical English Level 4 Test master
Unit Test 9-12 Answer Key

LANGUAGE

1 1 thought / 2 don't have / 3 running / 4 Creating / 5 affects / 6 having finally installed /
7 located / 8 lowering / 9 improving / 10 having achieved

2 11 obliged / 12 had / 13 should have used / 14 necessary / 15 didn't have

3 16 Having been pumped / 17 needed to be redesigned/needed redesigning / 18 They
were supposed to follow / 19 shouldn't have opened / 20 were obliged to make

VOCABULARY

4 21 hang on / 22 turn out / 23 get hold of / 24 come up with / 25 go about / 26 go ahead
with / 27 came up / 28 get on with / 29 get hold of / 30 go ahead with/go ahead with

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Промежуточный контроль

Name _____ Class _____

Technical English Level 4
Progress Test

Answer all the questions.

SECTION 1: VOCABULARY

1 Complete the sentences with a word from the box. There are some words you do not need.

physical/leak/reservoir/cracks/blockage/turbine hall/debris/ penstock/buckled/intake/transformers/backup/offline
--

In the hydroelectric power station, water is held in a (1) _____ before it is used.

When the (2) _____ gates are opened, the water flows down the (3) _____ to the turbines and generator. Unfortunately, when the accident happened it seemed as if the company did not have a second safety system in place as (4) _____. This is something which they've now addressed. The (5) _____ evidence discovered in the (6) _____ during the investigation included many large bolts with (7) _____ in them due to metal fatigue.

2 Complete the dialogue with a phrasal verb in the correct form from the box. There are some you do not need.

ran out/hang on/came up/came up with/looks forward/ rolling out/turned out/went about/went ahead/get on
--

with/

A: How did you (8) _____ that dissatisfied customer?

B: Very well actually. While I was there, a production problem (9) _____.
Fortunately, I (10) _____ a solution, which saved him quite a bit of money. So it
(11) _____ very well.

A: (12) _____, though. Does that mean it's going to cost us?

B: Not at all. It means that we'll get more orders from them. He (13) _____
with another order for 10,000 units while I was there.

A: That's terrific.

B: And he says he (14) _____ to continuing our business relationship long into
the future.

A: You obviously (15) _____ it the right way. Well done!

SECTION 2: LANGUAGE

3 In nearly every line there is an error. Underline incorrect words, strike through unnecessary words, put a slash where a word is missing and write any corrections on the lines. Put a tick (✓) if there are no errors in a line.

16 Locating near beautiful mountains, the Xenoe Power Plant has become a black spot
17 on the landscape after a serious accident killed several of its staff, damaged the 18
environment at the same time. Newspaper reports announced that the accident
19 could have prevented if the regular inspections required of such plants had been
20 carried out. All power plants have obliged to undertake regular maintenance
21 and full inspections in accordance with industry rules and regulations. Although
22 the company should have replace the pipe work every 15 years at least, they did
23 not comply with this regulation. This should not have been done but almost certainly
24 wasn't the cause of the system failure. The company policies had been clearly
25 communicated to staff, it is likely that lives were saved. There seems to have
26 been a lack of direction within the organisation. It is essential that top management
27 have clear policies and strategies for all eventualities. Staff need understand the
28 reasons for the rules and regulations which they supposed to follow and they
29 ought have regular emergency drills so they know what to do in any emergency
30 The injures which occurred must not have happened. It was all so unness

SECTION 3: READING

4 Read the article and choose the correct option.

- 31 The plant was opened in
a) 1954 b) 1976 c) 2003
32 At its weakest point, the thickness of the pipe which broke was
a) 55mm b) 4.7 mm c) 0.4 mm
33 When the accident happened the plant had been in operation for
a) 7 years b) 27 years c) 57 years

MIHAMA POWER PLANT ACCIDENT

Since the first ever nuclear power plant was established in Russia 57 years ago in 1954, there have unfortunately been some serious accidents. Despite being a relatively cheap and clean energy source, when something goes wrong, the dangers can be enormous.

In 2004 there was a serious accident, killing five and injuring six people, at Kansai Electric Power Corporation (KEPCO)'s Mihama Power No 3 Station in Japan. It occurred just as the reactor was about to undergo routine maintenance and involved the rupture of a pipe carrying pressurised water in the secondary circuit of the power station. When the pipe ruptured it

released an enormous jet of steam into the turbine hall, killing and injuring several of those in there. As soon as the fire alarm was activated, an order was announced over the public broadcast system to evacuate the turbine building, an ambulance was called for and the nuclear safety inspector's office, which was assigned to supervise the Mihama Power Station, was also informed.

At full power that steam would have normally been at 195°C and at pressure of about 180psi. A 55 mm wide rupture was found in part of the condensate piping. At the time of the accident, the pipes were carrying approximately 885 tons of water in the form of steam. The thickness of the walls of the piping was 10 mm when the plant began operating in 1976 and the design had specified they should be at least 4.7 mm thick. However, where the pipe ruptured, it was only 0.4 mm at the thinnest spot.

The investigation team found that the inner surface of the piping uncovered a shiny scale-shaped pattern indicative of “erosion corrosion”, a phenomenon whereby the pipe walls are eroded by the interaction of corrosion due to mechanical and chemical effect. Subsequently it was found that, in 27 years of operation, the pipe and never been checked and routine inspections had only been done visually instead of ultrasonically, which is the only way to check accurately. Although between 1998 and 2003 many pipes had been replaced in two other power stations, they had not been replaced at the No 3 plant. The amount of corrosion reflected a major fault, either in the design or in the inspection routine. If regular inspections had been carried out, they would have revealed the weakened state of the pipes.

Now seven years on, Kansai Electric has made significant changes. The company immediately undertook to prevent a reoccurrence of the problem and to restore public trust in the company by, for example, enhancing the strength of system, ensuring worker safety and re-examining the management of the pipes for the secondary system.

5 Complete the summary paragraph with words from the box. There are more words than you need.

serious deficiencies/corroded/activated/relevant authorities/burst/corrective strategy/health and safety/melted/regular servicing/get out/set off

The accident at the Mihama Power Plant happened not long before it was due for (34) _____ . A pipe (35) _____ causing steam to enter the turbine hall. Once the alarm went off, workers staff were told to (36) _____ and the (37) _____ were advised of the situation. The investigation uncovered (38) _____ in the safety procedures. They found that no ultrasonic tests had been done on the pipe which had in fact (39) _____ badly over the years. The company immediately put a (40) _____ into action.

SECTION 4: WRITING

6 Write an email to your line manager about a serious injury which occurred in the warehouse yesterday when an employee fell of a ladder, seriously injuring his back.

You should:

41/42 say who was involved, what and how the injuries were received

43/44 describe what the employee was doing when the accident happened

45/46 outline your actions immediately after the accident

47/48 suggest why you think the accident happened

49/50 propose what action should be taken to prevent this in the future

41/42 _____

43/44 _____

45/46 _____

47/48

49/50

SECTION 5: LISTENING

Track 7

7 Listen to the recording twice and decide if the statements are True (T), False (F) or Not Given (NG).

- 51 The airline representative knew what had caused the crash.
- 52 The black box had been damaged in the crash.
- 53 It is thought that the pitot tubes iced up.
- 54 The plane might have been going too slowly.
- 55 The high-altitude storm caused the crash.
- 56 They are certain that the plane stalled.
- 57 The pilot's last radio message failed to indicate a problem.
- 58 It is recommended that the pitot tubes are inspected.
- 59 The pilot failed to reply to his co-pilot.
- 60 Staff need to be trained in effective communications.

Progress Test Answer Key

SECTION 1 – VOCABULARY

- 1 1 reservoir / 2 intake / 3 penstock / 4 backup / 5 physical / 6 debris / 7 cracks
- 2 8 get on with / 9 came up. 10 come up with / 11 turned out / 12 Hang on / 13 went ahead /
- 14 looks/ is looking forward / 15 went about

SECTION 2 – LANGUAGE

- 3 16 Locating = **located** / 17 damaged = damaging/and damaged / 18 ✓ / 19 have **been** prevented 20 have = **are** / 21 ✓ / 22 replace = **replaced** / 23 ~~not~~ / 24 failure. If the / 25 were = **would have been** / 26 ✓ / 27 need **to** understand / 28 they / supposed = **are** 29 ought **to** have / 30 must = **need/should**

SECTION 3 READING

4 31 b / 32 c / 33 b

- 5 34 regular servicing / 35 burst / 36 get out / 37 relevant authorities / 38 serious deficiencies
- 39 corroded / 40 corrective strategy

SECTION 4 – WRITING

6 Sample answers:

- 41/42 Yesterday our warehouse supervisor fell of a ladder and seriously injured his back.
- 43/44 He was trying to get some stock from the top rack when the ladder he was on wobbled and slipped, causing the supervisor to fall.
- 45/46 I immediately rushed to him, contacting our first aid representative and calling for an ambulance.
- 47/48 I noticed that the ladder had not been locked correctly, which was why it wobbled and slipped. Furthermore there was no one at the bottom of the ladder.
- 49/50 I suggest that the company review its staff training policy especially in regard to health and safety issues and ensure that all current staff are given immediate retraining.

SECTION 5 – LISTENING

7

51 F / 52 NG / 53 T / 54 T / 55 NG / 56 T / 57 F / 58 T / 59 T / 60 T

В тестовых заданиях указывается общий наивысший балл по тесту, который соответствует 100 % выполнению теста.

Критерии оценивания тестовых работ имеют следующие диапазоны:
менее 50% - низкий уровень;
50%-70% - средний уровень;
70% и более - высокий уровень.

Итоговая аттестация

Name _____ Class _____

Technical English Level 4 Test Master

Exit Test

Sections 1 – 5 have a total of 60 marks. Try to answer all questions.

Section 6 (Speaking) has a further 20 marks.

SECTION 1: VOCABULARY

1 Choose the correct option.

- 1 If you _____ this material in water, it will dissolve.
a) interact b) immerse c) absorb d) interrupt
- 2 I'm afraid it seems that the pipe has _____ and that's what caused the leak.
a) corrupted b) corroded c) counteracted d) corrected
- 3 The manager _____ off the meeting by asking for our ideas.
a) hit b) sounded c) debated d) kicked
- 4 The speed of the machine increases by _____ of 0.25 kph.
a) increments b) percentages c) modifications d) transformations
- 5 The _____ pipe from the container was blocked so the water couldn't escape and the room flooded.
a) inlet b) output c) overflow d) down thrust
- 6 The _____ of the vehicle was excellent: 0-100kph in 3 seconds.
a) deceleration b) speed c) activation d) acceleration
- 7 When testing some vehicles the drivers have to _____ control of the vehicle to the computer. That can be quite frightening if you are not used to it.
a) restrain b) relinquish c) regain d) relieve
- 8 In order to build the bridge, the company had to _____ quite a bit of land from the sea.
a) disperse b) return c) construct d) reclaim
- 9 When dealing with oil spills, surface _____ is often the first option.
a) conduction b) containment c) contraction d) contaminant
- 10 Are you _____ to use the new system?
a) authorised b) confirmed c) computerised d) clarified

/10

2 Complete the sentence with a word formed from the word in capitals at the end.

- 11 The warning sign indicates that this substance is _____, so we must handle it carefully. FLAME
- 12 The company apologised for any _____ caused by the shutdown of the factory. CONVENIENT
- 13 This is a _____ network, so it can be added to all the time. SCALE

- 14 The job was extremely _____ as we were working at heights of 250 metres.
HAZARD
- 15 The _____ flaws are always difficult to detect. LINE

SECTION 2: LANGUAGE

3 Write the second sentence so that it is similar in meaning to the first sentence. Use the word given without changing it. Use NO MORE THAN SIX words

- 16 You give us a discount and then we'll place an order.
LONG
We'll place an order _____ a discount.
- 17 I believe the fire was started deliberately. A petrol can was found at the site.
MUST
The fire _____ y as a petrol can was found at the site.
- 18 The test facility is in a beautiful location as it lies between two hills.
SITUATED
_____, the test facility is in a beautiful location.
- 19 The door wasn't locked so the thief got into the room easily.
HAVE
If the room had been locked, the thief _____
_____ into the room so easily.
- 20 I became the CEO a year ago.
FOR
I _____ a year.
- 21 The prototype was being tested when the accident happened.
WHILE
_____, the accident happened.
- 22 The machine can run non-stop for a year.
CAPACITY
The machine _____ non-stop for a year.
- 23 Even if you don't agree, we are going ahead with the project.
REGARDLESS
We are going ahead with the project _____ or not.

4 Complete the paragraph with ONE word only in each gap.

KT Engineering has recently moved to a new manufacturing facility (24) _____ more manufacturing capabilities can be added and the offices expanded. The new location (25) _____ provide access to a larger employment base and, (26) _____ closer to the motorways and airports, will improve our distribution efficiency. (27) _____ the new facility is only 20 miles away (28) _____ the previous one, all current employees have remained with the company. (29) _____ the company hadn't made the move, it would have been in danger of being overtaken by its major competitor, who had just set (30) _____ a new operation in the area.

SECTION 3: READING

5 Read the text below and complete the notes.

- 31 depth of magnet underground: _____
- 32 length of magnets: _____
- 33 length of beam tube: _____
- 34 magnet temperature required for repair: _____

How the damage to the LHC was repaired

First, before any repair work could begin, the magnets had to be heated up from their low temperatures at absolute zero to room temperature. The warm-up process took about a month.

The next step was to isolate the magnets from one other. This was done by opening up the interconnections between each faulty magnet and its neighbours.

Next, each damaged magnet was lifted up to the surface. The magnets are 15 metres long and weigh 20–30 tonnes. They had to be raised approximately 100 metres up a shaft to ground level, while being kept perfectly parallel to the floor.

The damaged magnets were then inspected at a nearby above-ground site. Following this check-up, essential repairs were carried out on a total of 205 electrical interconnections.

At the same time, over 4 km of beam tube – the pipe which carries the beam of sub-atomic particles through the magnets – had to undergo a complete clean-out following the incident. This was done by pulling a large pad dipped in alcohol along the inside of the tube.

A restraint system was fitted to the magnets to tie them down and prevent them from being thrown off their supports in future.

Hundreds of helium pressure release valves were also installed around each magnet to prevent any build-up of pressure in the future.

After repairs, the magnets were taken back to their original locations, and then lowered carefully into position between their neighbours.

Once the magnets were in place, the electrical cables between them were connected up. The connections were coated in copper, which was then heated under pressure to solder the parts together.

Finally, all the magnets were connected up and tested, and the temperature was brought down again to absolute zero.

As for the future, to prevent such accidents from happening again, the whole meltdown warning system was given a major upgrade.

Hundreds of new detectors were installed around the magnets to constantly monitor the status of the interconnections and initiate an automatic shutdown of power to the magnets in case of any problem.

6 Complete the summary paragraph with words from the box. There are more words than you need.

fixed/checked/warmed/upgraded/lowered/separated/undertaken/carried/shut down/brought up

Before repair work can start, the magnets have to be (35) _____. Then they are (36) _____ and lifted to the surface where they are (37) _____ carefully and essential repairs (38) _____. The beam tube must be thoroughly cleaned with a pad soaked in alcohol and then the magnets (39) _____ to their supports so they are not thrown off in future. Once they have all been reconnected, tested and the temperature (40) _____ again, they can be returned to their positions.

SECTION 4: WRITING

7 You have been asked to write a summary report about the bridge your company has designed and plans to build across a harbour. Use these notes to help you.

41/42 by road 60Km/3-4 hours depending on time of day

43/44 ferries don't take vehicles/ vulnerable in typhoon season

45/46 new bridge stylish/visually attractive/add to view

47/48 environmental concerns/marine ecosystem (white dolphins)/pollution/potential chemical spillage

49/50 solutions: area set aside for dolphins/contingency plan for chemical spillages

HARBOUR BRIDGE – SUMMARY REPORT

41/42 _____

43/44 _____

45/46 _____

47/48 _____

49/50 _____

SECTION 5: LISTENING

Track 8

8 Listen to the recording twice and complete the notes. Use NO MORE THAN TWO words and/or numbers for each gap

ALUMINIUM SMELTING

Method: Electrolysis = (51) _____ created by electrical current.

Equipment: Smelting (52) _____ i.e. huge container.

(53) _____ layer at bottom of container with (54) _____ below the layer.

Carbon anode suspended from top of container.

Stages:(55) _____ put into container from hopper.



Pushed through (56) _____ electrolyte layer to form (57) _____ on surface.



Dissolved in molten electrolyte.



Electric current flows through all layers.



Temperature reaches (58) _____ Celsius.



(59)aluminium sinks to bottom of container.



Aluminium is then (60) _____ and ready for casting

SECTION 6: SPEAKING

9 Prepare a presentation to your teacher about yourself and the industry you work in*.

Include the following:

- introduce yourself and describe your current job*
 - say why you chose this job*
 - say what you have been doing for the past 2 years
 - explain what particular health and safety procedures are in place in your industry*
 - describe a crisis situation which has occurred in your own industry*
 - give details of the procedures used to deal with the crisis
 - explain what you would have done if you had been involved in the situation
 - outline the training you got for your job* or the training you expect to receive in your industry*
 - describe how you think jobs in your industry* will have changed in ten years' time
 - answer a question from your teacher about your talk
- * or the technology you are studying

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Technical English Level 4
Exit Test Answer Key

SECTION 1: VOCABULARY

1 1 b / 2 b / 3 d / 4 a / 5 c / 6 d / 7 b / 8 d / 9 b / 10 a

2 11 (in)flammable / 12 inconvenience / 13 scalable / 14 hazardous / 15 linear

SECTION 2: LANGUAGE

3 16 as/so long as you give us / 17 must have been started / 18 Situated between two hills / 19 wouldn't have got/wouldn't have been able to get / 20 have been the CEO for / 21 While the prototype was being tested / 22 has the capacity to run / 23 regardless of whether you agree

4 24 where / 25 will/can/should / 26 being / 27 As / 28 from / 29 If / 30 up

SECTION 3: READING

5 31 100m / 32 15m / 33 4Km+/more than 4Km/over 4Km / 34 room (temperature)

6 35 warmed / 36 separated / 37 checked / 38 undertaken / 39 fixed / 40 lowered

SECTION 4: WRITING

7 41/42 The current journey by road around the harbour is 60Km and can take between three to four hours, depending on the time of day.

43/44 The ferries which run do not carry any vehicles and also they are vulnerable in the typhoon season.

45/46 The new bridge we have designed is both stylish and visually attractive and we believe that it will add the harbour views.

47/48 However, we are aware that there have been some environmental concerns mainly with the marine ecosystem as this is one of the only places in the world with a white dolphin population. Furthermore, there are worries about the possibility of chemical spillages.

49/50 As a result of these concerns we have come up with some solutions. Firstly we have put forward proposals to set aside a special area for the dolphins and we have also created a contingency plan in the unlikely event that there is a chemical spillage

SECTION 5: LISTENING

8 51 chemical reaction / 52 pot / 53 carbon (block) / 54 iron bar / 55 alumina powder / 56 frozen / 57 hard crust / 58 950° / 59 (pure) molten / 60 tapped

SECTION 6: SPEAKING

9 For scoring, see the instruction on the test page.

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